Exploring continuing professional development in critical care: registered nurses' perspectives of elements influencing completion of a CPD programme in a South African private hospital group.

by

WILMA-JEAN VAN HEERDEN

Thesis presented in partial structured master's student fulfilment of the requirements

for the degree of

MASTER OF NURSING SCIENCE

in the

FACULTY OF MEDICINE AND HEALTH SCIENCES

UNIVERSITY OF STELLENBOSCH

Supervisor: Dr Janet Bell

March 2021

DECLARATION

By submitting this thesis electronically, I declare that this thesis for the Master of Nursing Science contained therein is my own, original work, that I am the sole author thereof, that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

WJ van Heerden

March 2021

ABSTRACT

Background

Continuing professional development is education throughout the duration of professional life to maintain competence and increase professional proficiency and expertise.

A complex reality of nursing practice in South Africa is that approximately 25% of nurses working in the critical care environment hold a critical care qualification. Therefore, healthcare services have to rely mostly on novice registered nurses and those new to this environment to care for the critically ill. In this context some South African private and public hospitals initiated structured internal continuing professional development programmes to offer a way of knowledge and skills improvement for nurses working in critical care environments without a critical care qualification.

A private healthcare group has offered a well-established structured continuing professional development programme in fundamental critical care nursing since 2003 to develop appropriate knowledge, gain practice exposure and clinical skills nurses may be unfamiliar with. In addition this programme has the aim to enhance safe and quality patient care as well as to avoid errors.

The aim of this study was to explore and describe the perspectives of registered nurses of elements that influence their successful completion of a continuing professional development programme in critical care nursing to strengthen the fit for purpose of this programme. The assumption by Knowles that adult learners are self-directed, and is motivated by information new and relevant in their personal lives or jobs, formed the basis in the conceptual framework for this study.

Method

A qualitative exploratory, descriptive research design was used by means of employment of semi-structured individual interviews. The target population was identified as RNs who participated in and completed a critical care continuing professional development programme within this private hospital group from the beginning of 2017 to the end of 2018. The accessible population was registered nurses who participated in the critical care continuing professional development programme in the Western Cape, Johannesburg, and Tshwane regions. A sample size of 14 participants concluded data saturation by means of a self-created open-ended interview guide.

Findings

The following three themes and related sub-themes emerged and concluded the data analysed:

1. Participants perceived a multitude of supporting elements to successfully complete this critical care continuing professional development programme namely readiness to learn, support and communication.
2. Similarly elements that detracted participants from successful completion of this continuing professional development programme were experienced as obstacles intra-person and also obstacles extra-person.
3. Participants finally provided their recommendations on elements that may be adapted to strengthen the fit for purpose of this programme. These elements concluded changes to be made by registered nurses themselves internally and changes to be made external to registered nurses.

Relevant literature and recommendations offered by the participants were used to formulate recommendations. Action steps for management, nurse educators and registered nurses to complete this continuing professional development programme successfully were formulated.

Key words used: continuing professional development/education, nurses, experiences, elements and influence. A combination of keywords were used with Boolean operators (AND, OR, NOT).

OPSOMMING

Agtergrond

Deurlopende professionele ontwikkeling is onderrig vir die duurte van professionele lewe om vaardigheid te handhaaf en professionele bekwaamheid en kundigheid te verbeter.

‘n Komplekse realiteit van Suid Afrikaanse praktyk is dat ongeveer 25% van verpleegkundiges werksaam in die kritiekesorg omgewing oor ‘n kritiekesorg kwalifikasie beskik. Vir hierdie rede moet gesondheidsorg dienste meesal staat maak op beginner geregistreerde verpleegkundiges en geregistreerde verpleegkundiges nuut in die kritiekesorg omgewing om, om te sien na kritieksiek pasiënte. Dit is in hierdie konteks dat sommige Suid-Afrikaanse privaat- en publiekehospitale intern, gestruktureerde deurlopende professionele ontwikkeling programme geinisieër het, as n wyse om voorsiening te maak vir die opgradering van kennis en vaardighede vir verpleegkundiges werksaam in die kritiekesorg omgewing en nie ‘n kwalifikasie in kritiekesorgverpleging het nie.

Die doel van hierdie studie was om die perspektiewe van geregistreerde verpleegkundiges te ondersoek en te beskryf, rakende aspekte wat suksesvolle voltooiing van ‘n deurlopende professionele ontwikkeling program in kritiekesorg verpleegkunde beïnvloed om die geskiktheid vir die doel van hierdie program te versterk. Die aanname deur Knowles dat volwasse leerders selfgerig is en gemotiveer word deur nuwe inligting relevant tot hul persoonlike lewe en beroep, het die basis van die konseptuele raamwerk vir hierdie studie gevorm.

Metode

‘n Kwalitatiewe verkennende, beskrywende navorsingsontwerp is gebruik dmv die toepassing van semigestruktueerde individuele onderhoude. Die teikenpopulasie is geïdentifiseer as geregistreerde verpleegkundiges wie deelgeneem het in die deurlopende professionele ontwikkeling program in kritiekesorg binne hierdie private hospitaalgroep en die program voltooi het voltooi het tussen die aanvang van 2017 en die einde van 2018. Die bereikbare populasie was geregistreerde verpleegkundiges wie deelgeneem het in die kritiekesorg deurlopende professionele ontwikkeling program in die Weskaap, Johannesburg en Tshwane streke. ‘n Monster grootte van 14 deelnemers het data saturasie bepaal dmv ‘n selfontwerpte oopeinde onderhoudsgids.

Bevindinge

Die volgende drie temas en verwante sub-temas het na vore gekom uit data-ontleed:

1. Deelnemers het veelvuldige aspekte waargeneem wat bygedra het tot hul suksesvolle voltooiing van hierdie kritiekesorg deurlopende professionele ontwikkeling program naamlik, gereedheid om te leer, ondersteuning en kommunikasie.

2. Aspekte wat deelnemers verhoed het om die kritiekesorg deurlopende professionele ontwikkeling program suksesvol te voltooi, is ervaar as struikelblokke binne die persoon asook struikelblokke buite die persoon.

3. Deelnemers het voorstelle gelewer op aspekte wat aangepas kan word om die geskiktheid vir die doel van hierdie program te versterk. Hierdie aspekte is saamgevat as veranderinge intern tot verpleegkundiges en veranderinge ekstern tot verpleegkundiges.

Relevante literatuur en aanbevelings deur deelnemers soos voorgestel deur deelnemers is aangewend om aanbevelings te formuleer. Aksiestappe vir bestuur, verpleegopvoedkundiges en geregistreerde verpleegkundiges om suksesvolle voltooiing van hierdie deurlopende professionele ontwikkeling program te verseker, is verder geformuleer.

Sleutelwoorde: deurlopende professionele ontwikkeling/onderrig, verpleegkundiges, of kritiekesorg verpleegkundiges, persepsie, ervaring en invloed. ‘n Kombinasie van sleutelwoorde is gebruik met die “Boolean” operateurs (EN, OF, NIE).

ACKNOWLEDGEMENTS

I am grateful to the Universe for providing me with the ability, opportunity and necessary support in many ways to develop myself further through this study and therefore all praise and honour there to.

I would like to express my sincere thanks to:

- Dr Janet Bell, my supervisor at the University of Stellenbosch for her continuous guidance, support, patience and encouragement during this research project and her belief in me.
- To all the nurses who participated in this study.
- My peers and colleagues who supported and encouraged me.
- The institutions and the managers where the research was conducted.
- The hospital group for the opportunity to do this research.
- The fieldworkers for their contribution.
- All the librarians at Tygerberg and Stellenbosch campuses.

Without all of you this study would not have been possible and a reality.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

ABBREVIATIONS

CPD	Continuing Professional Development
HPCSA	Health Professions Council of South Africa
SANC	South African Nursing Council
CC	Critical Care
RN	Registered Nurse

CHAPTER 1

FOUNDATION OF THE STUDY

1.1 INTRODUCTION

Continuing professional development (CPD) is a process of education and development that proceeds from a person's initial qualification for the duration of their career. The broad intent of CPD in healthcare professions is to maintain competence by practising and increasing professional proficiency and expertise (Kemp & Baker, 2013:542; Sherman & Chappell, 2018:4). It is within this broad intent that CPD then also applies to nurses working in the critical care environment. Compulsory participation in CPD for health care practitioners in South Africa (SA) was legislated in the Health Professions Amendment Act No. 29 of 2007 (Republic of South Africa (RSA), 2007:2).

In this chapter, the background to the study is discussed. Some literature linked to CPD and the context within SA is presented, and the problem statement is extrapolated. Following the problem statement, the research objectives are stated, then the related concepts are clarified, and finally the paradigmatic perspective of this study is discussed. The research design, methods, and ethical considerations are stated briefly with a detailed discussion in Chapter Two.

1.2 BACKGROUND TO THE STUDY

Although literature reflects different terms to identify CPD amongst nursing professionals (Gould, Drey & Berridge, 2007:602; Hegney, Tuckett, Parker & Robert, 2010:142; Ni, Hua, Shao, Wallen, Xu & Li, 2014:592; Nsemo, John, Etifit, Mgbekem & Oyira, 2013:328; Sherman & Chappell 2018:4), the global view point reflects CPD for nurses as lifelong learning to develop and maintain knowledge and skills from their first qualification throughout their career (Hegney et al., 2010:142; Kemp & Baker, 2013:542; Drude, Maheu and Hilty, 2019:1).

Various countries align with the perspective that CPD assists nurses to limit errors in practice which may place patients at risk, to improve career opportunities by supporting personal growth, to keep abreast of new developments, and to aid in nursing staff retention (Gould et al., 2007:605; De Beer, Brysiewicz & Bhengu, 2011:1; Shinners, 2019:6). This is consistent with the finding by William in 1996 (as cited in Chong, Sellick, Francis & Abdullah, 2010:39), who suggested that knowledge aquired through basic professional eduction has a half-life of approximately two and a half years. Therefore, knowledge that is not enhanced through further education and training will become outdated by the end of this period.

Following their initial qualification, registered nurses (RNs) should develop and acquire updated and enhanced skills, knowledge, and professional behaviour. This means that RNs should engage in planned authentic activities in the clinical environment in which they practice to ensure that they gain updated skills, knowledge, and behaviour required. Such

activities are offered through CPD platforms to provide opportunities for nurses to develop, update, and integrate knowledge, skills, and behaviours (Mnguni & Langa, 2015:7).

Globally, participation in CPD activities by nurses is influenced by several factors. These factors include individual needs, as well as professional and organisational requirements (Griscti & Jacono, 2006:449; Pool, Poell & ten Cate, 2013:35). The individual needs of nurses identify CPD as a way to guide and assist adult learners in meeting their learning needs and goals. These individual needs are influenced by past experiences, readiness to learn, orientation to learning, and the need to learn (Cooper, 2009:502). The South African Nursing Council (SANC) states that CPD should be based on the values of availability, accessibility, affordability, and quality, learning needs prioritised by nurses. These values serve the purpose to enhance and improve existing knowledge and skills and to link learning to professional practice standards (Mnguni & Langa, 2015:7).

Requirements for CPD for nurses by professional bodies vary in different countries. In South Africa, CPD for health care practitioners, excluding nurses, is regulated by the Health Professions Council of South Africa (HPCSA). The overarching aim of the HPCSA is to provide health care practitioners with opportunities to develop relevant skills, knowledge, and behaviours which in turn will serve the health needs of the population. Thus, protecting the public and ensuring that health care practitioners practice legally within their disciplines enhanced through participation in CPD activities (HPCSA, 2017:1).

Similarly, as the regulatory body of the nursing profession in SA, the mandate of the SANC is to serve and protect the South African public and the profession through setting and maintaining standards for nursing practice (RSA, 2005:7). Within the Nursing Act 33 of 2005, the SANC, similarly to the HPCSA, requires all nurses and midwives to uphold and maintain professional conduct, ethics, and practice standards to protect the public in matters involving nursing and midwifery services (Mnguni & Langa, 2015:6). Therefore, RNs have a professional responsibility to remain competent and current with developments in healthcare (SANC, 2013:6). CPD is essential for creating awareness of developments in healthcare, for both the SANC and RNs, to achieve these responsibilities (Mnguni & Langa, 2015:6). This means that RNs should be exposed to practices and cultures of the relevant postgraduate career speciality of interest, and should be able to reflect on practice related to their individual needs.

Currently, only health care practitioners registered with the HPCSA are required to provide proof of CPD activities to retain their registration (HPCSA, 2017:1). In line with the provision of the Nursing Act 33 of 2005, the SANC is developing a CPD system for all nurses, by means of pilot processes (SANC, 2018:3).

Overall, the aim of CPD is to nurture the transfer of learning, meaning that what has been learnt needs to be applicable to the current profession and the professional roles within that environment. Therefore, structured CPD programmes for RNs have the purpose to further develop fundamental knowledge and skills with the emphasis on the delivery of quality and safe patient care (SANC, 2019:92). To further develop skills and knowledge, a programme should be fit for the purpose. Thus, RNs working in the critical care (CC) environment will revise appropriate basic knowledge, as well as being provided with basic

CC knowledge, skills and, exposure they may not yet be familiar with. Fit for purpose further refers to the fundamental education of nurses such as those working in the CC environment so that they may implement safe patient care through knowledge gained in the programme (SANC, 2019, p. 92). Such fit for purpose education serves to enable them to identify the need to seek assistance where patient care requires knowledge and skills beyond their current competency (Mediclinic, 2018:1).

Critical care nursing underpins providing complex, detailed, urgent care to patients suffering from acute life-threatening injuries or illnesses. This care requires nurses to have a high level of technological practice abilities, extensive current scientific knowledge, and developed capabilities in decision making (De Beer et al., 2011:1; Hang & Xi, 2018:70). The complex reality of practice is that approximately 75 % of RNs working in the CC environment in SA do not hold an additional qualification in CC nursing (De Beer et al., 2011:2-3). Owing to this shortage of qualified CC nurses, healthcare services in South Africa have to rely heavily on RNs without specialist education, such as newly qualified RNs, those RNs working in the non-critical care environments, and RNs returning to the profession after a break (De Beer et al., 2011:3). Due to the notable shortage of qualified CC nurses, further stress is placed on the already stretched nurse capacity within the CC units and this negatively affects patient care (De Beer et al., 2011:2).

Newly qualified RNs and those returning to this environment understandably require a significant amount of guided clinical support. Within this practice reality, CPD programmes in critical care nursing offer an introduction to the basic knowledge and skills required by nurses entering the CC environment with little or no previous experience or knowledge of this environment. In addition, CPD programmes provide the update in knowledge and skills for non-critical care qualified, as well as CC qualified nurses working in the CC environment.

The theorist, Patricia Benner (1984:13-34), points out five stages of skills development that a nurse can move through in developing from a novice to an expert in a specific discipline. These stages are novice, advanced beginner, competent, proficient and expert, and these stages are similarly applicable to RNs working in the CC environment. CPD programmes should enhance the skill acquisition of the novice RN to assist in their progress from a novice to a competent, proficient or even an expert nurse. Knowledge and skills acquired through a CPD programme can assist RNs to readily and effectively make sense of this environment and understand the context of their nursing practice; thus, improving quality and safe nursing care (Kemp & Baker, 2013:541).

Despite the fact that the CPD system in for nurses in SA is still in a developmental stage, some private and public hospitals in South Africa have initiated internal CPD programmes which represent the organisational factor motivating nurses to engage in CPD. The purpose of these internal CPD programmes is to offer professional development opportunities for nurses and to enhance patient care by RNs, such as those working in the CC environment (Viljoen, Coetzee & Heyns, 2017:70).

A private healthcare group has offered a well-established CPD programme in fundamental CC nursing since 2003. The purpose of this programme is to enable RNs in the CC environment to implement safe patient care by utilising their acquired knowledge and skills

or to identify the need to seek assistance in cases where the patient care requires knowledge and skills beyond their current competency. This programme is structured with theoretical and practical components. These components aim to guide RNs in the development of appropriate basic knowledge and clinical skills that they are unfamiliar with in CC practice (Mediclinic, 2016:1).

Further, these components address current evidence-based practice data applicable to basic knowledge and skills levels required by novice, experienced, and qualified RNs practicing in the CC environment. This is important since this health care group relies on novice RNs and those returning to practice to work in the CC environment. Therefore, the purpose of this CPD programme is firstly to support RNs working in the CC environment to develop and establish a current fundamental knowledge and skills base. The second purpose of this CPD programme is to ensure a well-educated workforce that can provide safe, quality nursing care and improved patient outcomes (Nsemo et al., 2013:328; Hang & Xi, 2018:70).

Versions of this CC CPD programme have been available and accessible to nurses practising in the CC environment for the past 17 years. The institution provides study material to nurses which is revised and updated every three years. Revision of the study material serves to ensure current content and to continuously link theory to practice. Linking theory to practice is achieved through practice exposure and guidance by a nurse educator and mentors in practice. In addition, nurses are given time to attend interactive sessions where theory-related guidance is provided.

In this way, an opportunity is provided for nurses working in the CC environment to update knowledge and skills relevant to CC nursing, based on their individual learning needs. Simultaneously, a foundation for further CC nursing studies is laid. Furthermore, all nurses working in the CC environment are motivated and encouraged to participate in this programme as a means to provide quality patient care and safety.

1.3 RATIONALE

As a CC nurse educator employed at a private hospital group, this researcher has observed that a larger number of RNs who entered the CC CPD programme seemed to have difficulty in successfully completing this programme. Nurses entering this programme are required to provide proof of theoretical and practical formative assessments at the end of a four month programme. Successful completion of this programme has three requirements.

Firstly, to complete two theoretical tests with an average mark of 50 % and secondly, to provide evidence of successfully completion of the practical component, which consists of a practical skills assessment in which the student must be declared competent in. Secondly, student activities need to be completed by nurses to show they have developed the necessary knowledge and understanding fundamental to CC nursing. Practical skills competence is assessed by a CC nurse educator, CC qualified clinical facilitator or CC qualified mentor in practice. The third requirement is to provide proof of a portfolio of evidence of nursing care rendered to critically ill patients. Failure to submit the required

proof of evidence or submission of incomplete evidence, it is considered inadequate, thus unsuccessful and require candidates to re-enter for this programme.

This CC CPD programme was introduced in 2003. Available programme throughput data shows a steady decline in the pass rate of RNs participating in this CPD programme from 73% in 2012 to 59% in 2018. The available data showing the decline in the entry, drop out, and pass rates of nurses related to this CPD programme for the period 2012 to 2018 is tabulated in Table 1.1.

Table 1: CPD for RNs - intakes and outcomes for 2012 to 2018.

Year	Number of nurses entering CPD programme	Number of nurses to withdraw prior to programme	Percentage of nurses to withdraw from programme	Remaining number of nurses in the programme	Number of successful nurses/ Corresponding percentage	Number of unsuccessful nurses/ Corresponding percentage
2012	64	12	18.75 %	52	38 = 73 %	14 = 27 %
2013	124	16	12.90 %	108	70 = 65 %	38 = 35 %
2014	85	8	10.62 %	77	54 = 70 %	23 = 30 %
2016	119	21	5.6 %	98	62 = 63 %	36 = 37 %
2017	145	33	22.75 %	112	58 = 52 %	54 = 48 %
2018	206	31	15.04 %	175	113 = 59 %	78 = 41 %

(Note: 2017 and 2018 comprised of two intakes per year)

From these figures, it is clear that an increasing number of RNs entering this programme are not able to achieve the required criteria successfully. Therefore, it appears that despite factors such as organisational support, study resources, time, and mentor/educator support, nurses have difficulty in successfully completing this programme. Individuals who were unsuccessful in completing this programme may have experienced feelings of failure and resentment (Drey et al., 2007:608; Hang & Xi, 2018:71), and may become less motivated which, in turn, might influence the quality of care and safety of critically ill patients.

For this reason, these observations raised concern, as nursing care of critically ill patients rests on the availability of sufficient, competent, safe, and professional nurses who are fit to work in a complex, dynamic, and unpredictable critical care environment (Marshall, Bosco, Adhikari, Connolly, Diaz, Dorman, Fowler, Meyfroidt, Nakagawa, Pelosi, Vincent, Vollman & Zimmerman, 2017: 273).

1.4 PROBLEM STATEMENT

A well-established, structured CPD programme in CC nursing is available for RNs at a private healthcare hospital group. The theoretical and practical elements of this programme are designed to support RNs in developing the fundamental capabilities required to work safely and effectively with critically ill people and to make sense of this

complex environment. The content and structure of this programme have been updated regularly to ensure the application of contemporary teaching and learning methods, and to ensure that the content is current and relevant, so that the programme is fit for its purpose.

One strategy that was employed to ensure that RNs master the content of this programme, was to explicitly state the learning outcomes and activities relevant to CC nursing science. As mentioned before, this healthcare group provided study material, skills resources, exposure to different CC practice environments, and ongoing support by mentors, clinical facilitators or nurse educators for nurses participating in this programme.

Despite regular programme revisions and strategies designed to support nurses participating in this CPD programme, many nurses seemed to struggle to meet the required practical and theoretical criteria, as set out in this programme. As described, this may have had several effects on the individual, the nursing profession, the organisation and on patient safety and care.

This study aimed to gain a better understanding of the perspectives of RNs with regard to this CPD programme in the CC environment where they are practising. The purpose of this study therefore was to obtain a deeper understanding of the various contributing and detracting elements influencing a nurse's success or failure in this programme. The data collected from the participants served to develop recommendations to interrogate whether this CPD programme is fit for its purpose and to further programme revision and presentation in order to optimise CPD in CC for nurses, the organisation, and patients.

1.5 RESEARCH QUESTION

What are the perspectives of RNs of elements that influence their successful completion of a CPD programme in CC offered in a private health care setting in SA?

1.6 RESEARCH AIM

The aim of this study was to explore and describe the perspectives of RNs of elements that influenced their successful completion of a CPD programme in CC nursing to strengthen the fit for purpose of this programme.

1.7 RESEARCH OBJECTIVES

The objectives set for this study were:

- To identify elements that had a supporting influence on the completion of a CPD programme in CC from the perspective of RNs.
- To identify elements that had a detracting influence on the completion of a CPD programme in CC from the perspective of RNs.
- To explore and describe elements that may be adapted to strengthen the fit for purpose of this programme.

1.8 THEORETICAL FRAMEWORK

A theoretical framework guides the researcher to focus, arrange, and plan the study at hand through the use of existing theories with the purpose of examining a problem and then gathering and analysing the data. The concepts of a theory are interrelated to design a way of viewing the research at hand (Brink, 2009:24). In order to understand the relevance of CPD for registered nurses, the researcher will use Knowles' theory on adult learning (Cooper, 2009:502) as a theoretical framework for the study and understanding the perspectives of registered nurses, related to a CPD programme.

Knowles explains that adults learn differently from children. This contrast should be recognised and addressed in professional development for adults such as health care workers (Cooper, 2009:502). Andragogy or adult learning refers to the science and art of guiding adult learners in learning, understanding, and acquiring a skill by study, instruction or experience (Merriam-Webster, 2019:September 1).

Alfred Whitehead, as cited in Tight (2012:53), noted that education as a process of transmittal of knowledge, serves a purpose as long as the timespan of major cultural change was greater compared to the lifespan of individuals. This leads to the assumption that what nurses learn during their initial nursing education will remain valid for the rest of their lives. However, it can be argued that this assumption is false, as skills and knowledge gained initially become outdated with new knowledge and technological advances.

Currently, the timespan of what nurses learn during initial nursing education is considerably shorter compared to the average human lifespan. Therefore, lifelong learning by means of CPD has the aim to assist nurses to refresh their skills and knowledge. This is applicable to nurses working in a complex, highly technological environment where extensive current scientific knowledge and decision-making capabilities are required to care for critically ill patients. Thus, learning should be a lifelong process of discovering what is not known.

CPD for RNs should therefore be developed and instituted to guide and assist adult learners in an attempt to meet their learning needs so as to reach their learning goals (Shinners, 2019:6). This is further supported by Govranos and Newton (2014:656), confirming that to ensure appropriate service delivery and enhancement of patient care, it is essential to understand the clinical nurses' value and needs of CPD.

1.9 CONCEPTUAL DEFINITIONS

Conceptual definitions are referred to as the abstract or theoretical meaning of the concepts that need to be clarified so that other researchers can understand the context related to the specific study (Polit & Beck, 2014:44). The following concepts, used in this study, are discussed for clarification purposes.

Registered nurse

Registered nurse refers to a person registered in terms of section 30 (1) of the Nursing Act, Act, No 33 of 2005, according to the SANC as "*a person who is qualified and competent to practice independent comprehensive nursing at a prescribed level and is*

able to accept responsibility and accountability for such practice" (SANC, 2005:25). In terms of this study, the term RN refers as such and includes all qualified RNs in clinical practice, including the CC environment, but without a SANC registered CC nursing qualification.

Critical care environment

A critical care environment refers to the area where patients suffering from life-threatening illnesses or injuries, and their relatives and family, are cared for by nurses. This environment requires highly technological practice and a broad knowledge base combined with a high level of decision-making skills (Bell, 2015:6). For the purpose of this study, the term CC environment is interchangeable with intensive care unit as cited in the literature.

Programme

Programme refers to printed guidelines of the order to be followed, the features to be presented, and the persons to participate (Merriam-Webster Dictionary, 2018:February 14). For this study, programme refers to written guidelines of goals and objectives to be reached by RNs working in a CC environment during a four month period.

Continuing professional development programme

A CPD programme related to nursing in the South African context refers to a purposeful legislative process whereby nurses engage in a range of learning activities to maintain and enhance knowledge, skills, attitudes, and professional integrity. This programme ensures updated knowledge of new science, innovation, and healthcare developments to practice ethically, competently, safely, and legally within the evolving scope of practice in provision of quality nursing care to the community (Mnguni & Langa, 2015:6). In this study, CPD programme refers to a purposeful process where nurses revise and update knowledge, skills, attitudes, and professional integrity related to CC nursing through a range of activities.

Perspectives

Perspective means to think about a situation in a wise and reasonable way, to compare something to another, and to accurately and fairly judge it (Cambridge Dictionary, 2018: March 24). For the purpose of this study, perspective, as defined here, was used to gather accurate and fair information from a designated group of nurses regarding supporting and detracting elements, and how these elements may be adapted to strengthen the fit for purpose of this programme.

1.10 RESEARCH DESIGN AND METHOD

A research design evolves from the specific research question or aim of the study with strategies to enhance the integrity of the study. The methodology is the overall plan, including a description of the techniques used to structure the study, to gather and analyse information in a particular order, and to address the research question (Polit & Beck, 2014:390).

This study followed a qualitative, exploratory, descriptive, and contextual design. Data was collected by means of individual interviews. Participants were requested to answer open ended questions and share their perspectives about CPD related to the research questions. Data analysis encompassed the eight steps recommended by Tesch (Creswell, 2018:196) to ensure analysed data was comprehensible, insightful, and trustworthy. A detailed description of this research study design and method will be discussed in Chapter Two.

1.11 MEASURES TO ENSURE TRUSTWORTHINESS

LoBiondo-Wood and Harber (2010:126) explain trustworthiness in a qualitative study as the responsibility of the researcher to demonstrate the richness of the data and to clearly convey the relationship between themes identified and the quotes shared. Trustworthiness is also ensured by following Lincoln and Guba's (1985) trustworthiness model, which refers to credibility, transferability, dependability, and conformability. This model was used as a guiding principal to ensure trustworthiness in this study. An additional aspect, authenticity, was added as reported by Polit and Beck (2014:323). These concepts and how they were applied in this study will be discussed comprehensively in Chapter Two.

1.12 ETHICAL CONSIDERATIONS

Ethical considerations require research participants and society to be respected and protected at every stage of the research process. Approval to conduct this research study was obtained from the University of Stellenbosch Health Research Ethics Committee Permission from all relevant organisation departments was obtained. General ethical principles that guide research such as beneficence, non-maleficence, informed consent, anonymity, and confidentiality were adhered to in this study. Again, ethical considerations will be discussed in detail in Chapter Two.

1.13 CHAPTER OUTLINE

Chapter 1: Foundation of the study

Chapter 2: Research design and method

Chapter 3: Research findings and literature control

Chapter 4: Discussion, conclusions, and recommendations

1.14 SIGNIFICANCE OF THE STUDY

The increase in number of nurses who are unsuccessful in a critical care nursing CPD programme in this private hospital group could have significant undesirable effects. These effects affect nurses, patients and the SANC. Effects on nurses include work satisfaction and retention of CC proficiency. For patients, the quality of the care they receive could be compromised and for the SANC, the mandate to protect the public may be affected.

The findings from this study may provide insight on the perspectives of RNs working in the CC environment regarding elements that support and detract RNs from successful completion of a CPD programme in CC in SA. Through identification of these elements, gathering of more accurate and specific data had the aim to support nurses in the successful completion of this CPD programme. This may promote safe, effective, and patient-centered nursing care, while reducing errors within the CC environment. It may also identify components that could be adapted to improve the fit for purpose of this programme and provide answers of special relevance to practitioners, such as nursing and unit managers, mentors, and policy makers (Sandelowski, 2000:337; Ryder, Browne, Galvin, Leonard & O'Reilly, 2018:439). This information could add to the existing knowledge base in South Africa.

1.15 SUMMARY

In this chapter, the researcher described CPD related to RNs working in the CC environment as a critical component of education and development related to skills and knowledge fundamental in CC nursing practice. The research problem and objectives were to identify supporting and detracting elements that influence the successful completion of a CPD programme in CC. In this way the researcher was enabled to be a voice for these nurses in optimising their CPD, as well to explore and describe elements that may be adapted to strengthen the fit for purpose of this programme.

A discussion of the paradigmatic view, followed by the research methodology, and the study's trustworthiness and ethical considerations were briefly stated. A more detailed discussion of the research methodology is provided in Chapter Two. A review of literature, related to the background for the research problem, was conducted upon collection of research reports (Creswell, 2014:65). This will be discussed in Chapter Three, where the literature will be linked to the study findings to explain, support, and analyse the findings of this study (Grove et al., 2015:165).

CHAPTER 2

RESEARCH DESIGN AND METHOD

2.1 INTRODUCTION

In Chapter One, CPD and related concepts linked to the background of the research study were discussed. The research question and an overview of the method processes were presented. In this chapter, a detailed description of the research design and the applicable method for this study are presented.

2.2 AIM AND OBJECTIVES

The aim of this study was to explore and describe RNs perspectives of elements that influenced their successful completion of an existing CPD programme in CC nursing. The objectives set for this study were firstly, to explore the elements that had a supporting influence on the successful completion of a CPD programme in CC from the perspective of RNs. Secondly, to explore the elements that had a detracting influence on the successful completion of this programme in CC from the perspective of RNs. Thirdly, to identify and describe elements that may be adapted to strengthen the fit for purpose of this CPD programme.

2.3 STUDY SETTING

Polit and Beck (2014:392) describe a study setting as the physical location and conditions in which data collection is conducted. The physical locations for this study were three dedicated learning centres belonging to a private hospital group**.** These learning centres are situated in three of the five regions in SA where the hospital group operates, namely the Western Cape, Tshwane, and Johannesburg regions (see section 2.6 – Data collection method).

These learning centres are accredited by the SANC; thus ensuring nursing training that meets the SANC regulations. Specialist learning facilitators with a SANC accredited critical care qualification are responsible for facilitation and guidance to RNs who participate in this CC CPD programme. Critical care units within the regions mentioned are all aligned to the specific learning centres in a region.

2.4 RESEARCH DESIGN

The research design, according to Polit and Beck (2014:390), flows directly from the specific research question or purpose of the research study i.e. the specific approach taken in order to reach the stated study aim and objectives (De Vos, Strydom, Fouche, & Delport, 2013:67). The research design can also be explained as the blueprint or outline for conducting the research study; therefore, it directs the selection of a population, measures for sampling, plans for the collection and analysis of data, plans for literature control, and the role of the researcher and the skills needed to manage the data. Each of these aspects will be elaborated on throughout this chapter (Grove et al., 2015:511). In this study, a qualitative approach applying an exploratory, descriptive design was used.

This design incorporated the features which will be mentioned in the next section, where each feature is described and applied to this research study.

2.4.1 Qualitative research

A qualitative research approach is defined by De Vos et al. (2013:64) as organised and logical research through collection of voiced data from a smaller number of participants. More specifically, qualitative research is used to collect data to offer a deeper understanding of the experiences of persons from their perspective (Grove et al., 2015:67). In this way, the reader is allowed to see the world through the eyes of the study participants (Creswell, 2014:64).

A qualitative research approach for this study was applied to collect and describe rich descriptive data voiced by RNs. Data included factors that contributed to and detracted RNs from their successful completion of the CPD programme in CC as well as elements that could be adapted to strengthen the fit for purpose of this programme from their perspectives. In this way, the researcher could generate a better understanding about ways to intervene and support RNs participating in this CPD programme to ensure not only a higher throughput, but also an improved success rate. As a result, this method of research would enable the researcher to gather data which could lead to a distinct contribution to evidence-based practice (Brown, 2014; Munhall, 2012 as cited in Grove et al., 2015:67).

2.4.2 Exploratory research

Exploratory studies have the aim to provide information and insight into clinical or practical problems through the description of a lived experience of study areas related to a new topic or to describe a situation (Creswell, 2014:20; Grove et al., 2015:70-77). An exploratory research design allows the researcher to approach the research problem in search of useful information and practical solutions (Creswell, 2013 as cited in Grove et al., 2015:77).

Therefore, the aim with this study was to explore the reasons why more RNs are not able to successfully complete the CPD programme in CC nursing, as identified by participants. By exploring these reasons, the researcher could search for information as well as practical problems that could contribute to the identified research problem.

2.4.3 Descriptive research

Qualitative studies have the obligation to accurately describe situations and events related to the specific population involved (Babbie, 2010:93). Qualitative descriptive research further communicates the situations and events, as experienced by the population studied by the researcher (Sandelowski, 2000:336). This means that when applying a descriptive design, the researcher explores and describes phenomena in real-life situations through the use of face-to-face interaction with participants in their natural settings with no way of manipulating the situation (Creswell, 2014:185; Grove et al., 2015:245). The researcher therefore applied descriptive research to allow collection of verbal information that would

describe real-life situations as experienced by participating RNs. A descriptive design allowed for a better understanding of the perspectives of RNs with regards to this CPD programme in the CC environment where they were practising.

By combining the above in an exploratory descriptive design, the researcher was able to gain insight into the phenomena that led to the successful and unsuccessful completion of this CPD programme as well as elements that may be adapted to strengthen the fit for purpose of this programme. Information was collected by asking the question “what” as underpinning in an exploratory research design and “how” in the underpinning of a descriptive research design. This information would lead to a richer description of the studied phenomenon to develop an answer to the research question (cited by Mouton in De Vos et al., 2013:96).

Through this study, the researcher explored and described RNs’ perspectives of elements influencing their successful completion of a CC CPD programme in a South African private hospital group. Participants were asked to describe and discuss their perspectives of elements that had a supporting and detracting influence on their successful completion of this CPD programme. Participants were also asked to identify and describe elements that may be adapted to strengthen the fit for purpose of this programme. Therefore, the researcher explored participants’ perspectives by engaging with the “what” and “how” questions of their perspectives of this CC CPD programme in this private hospital group. Thus, this study aligned with the indicators of a qualitative approach with an exploratory and descriptive research design.

2.5 POPULATION AND SAMPLING

In this section, the population, sampling strategy, and participants for this study were defined and discussed. An overview of how these concepts linked to each other is illustrated in the diagram in Figure 2.1, which is based on the diagram presented by Grove et al., (2015:250). The researcher then explained how these concepts were applied in this study.

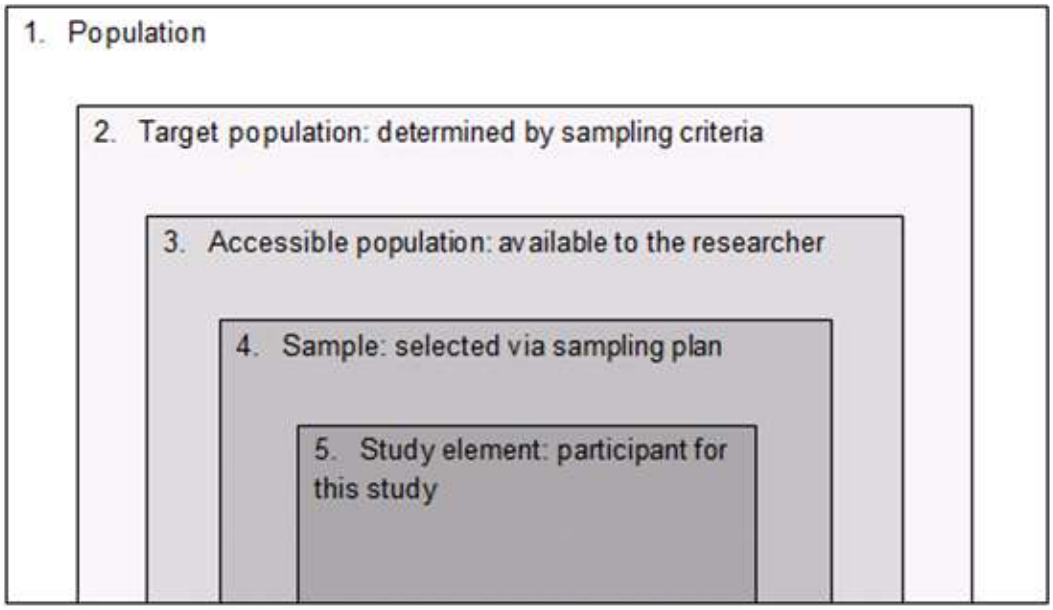


Figure 2.1: Linking population, sample and study elements (Grove et al., 2015:250).

Population is the all-inclusive group of people who are the focus of the research study (Polit & Beck, 2014:177). Based on this definition, the researcher identified the study population as all RNs in a private hospital group in South Africa who participated in the CC CPD programme.

Target population refers to the entire set of individuals who meet the sampling criteria (refer to sections 2.5.1, Inclusion criteria and 2.5.2, Exclusion criteria) of interest to the researcher (Grove et al., 2015:250). The target population was therefore identified as RNs who participated in and completed a CC CPD programme within this private hospital group from the beginning of 2017 to the end of 2018.

The accessible population refers to the actual portion of the population accessible to the researcher, as reality may not allow the researcher to access the entire target population (Babbie, 2010:193). Thus, the accessible population was identified as RNs who participated in the CC CPD programme in the Western Cape, Johannesburg, and Tshwane regions. RNs who participated in this CC CPD programme from regions other than those mentioned, namely Central and Nelspruit regions were not included because of the geographically remote locations of the hospitals where they were practising.

Sample selection occurred through a purposive sampling strategy as this method addressed the specified inclusion criteria to answer the research questions. Sampling in qualitative research studies is a process whereby specific people are identified to provide information rich data from the population (LoBiondo-Wood & Harber, 2010:90; Polit & Beck, 2014:177). The researcher therefore compiled a list of essential characteristics prior to participant sample selection to ensure that participants met the required participant study criteria (Grove et al., 2015:251). Essential characteristics were set out in the inclusion and exclusion criteria, (refer to sections 2.5.1, Inclusion criteria and 2.5.2, Exclusion criteria) thus refining the sampling process (Grove et al., 2015:251). The inclusion and exclusion criteria used in the selection of the sample are outlined below:

2.5.1 Inclusion criteria

- RNs that successfully completed the CPD programme during the period from the beginning of 2017 until the end of 2018 in the Western Cape, Johannesburg, and Tshwane regions and were still working in a critical care environment in this hospital group.
- RNs that unsuccessfully completed the CPD programme, during the period of 2017 until the end of 2018 and were still practicing in a CC environment in this hospital group at the time of data gathering during August and September 2019.

2.5.2 Exclusion criteria

- RNs that completed the programme, but were no longer working in a critical care environment in this hospital group.
- RNs who participated in the CPD programme before the start of 2017. They were excluded as the researcher wanted to ensure that participants' memory regarding the programme was still recent enough to provide rich data.
- RNs that withdrew before or during the programme or did not complete the programme for any reason.

Study elements indicate the individual units of the population and sample; however, in this qualitative research study the researcher refers to these elements as participants (Grove et al., 2015:250). Study participants were thus identified as RNs working in a private hospital group in South Africa who participated in the CC CPD programme and met the inclusion and exclusion criteria as discussed in sections 2.5.1, Inclusion criteria and 2.5.2, Exclusion criteria. Participant identification will be discussed in the data collection section (section 2.6, Data collection method).

The final sample size, as determined by data saturation being "the point at which gathering more data about a theoretical construct reveals no new properties" (Bryant & Charmaz as cited in Hennink, Kaiser & Marconi, 2016:592), was 14 participants. Data saturation will be also discussed in the data collection section.

Table 2.1 illustrates the number of participants invited to participate, the number of participants who responded, and the number of participants who finally agreed to participate in this study from the onset of 2017 to the end of 2018, according to the regions.

Table 2.1: Number of participants from 2017 to 2018 invited, responded, and interviewed per region.

Hospital region	Number of accessible participants invited	Number of participants responded	Number of participants interviewed
Western Cape	17	10	8
Johannesburg	14	4	2
Tshwane	12	6	4

2.6 DATA COLLECTION METHOD

As mentioned, the researcher made use of the purposive sampling data collection method. Following clarification of the inclusion criteria, the process of participant identification started. The researcher obtained the list of names of the accessible population via the electronic data base of the private hospital group. Rigorous application of the inclusion and exclusion criteria guided the researcher in the study participant recruitment, thus, ensuring the fit for purpose as well as augmented validity and trustworthiness of this study (Creswell 2014:158).

Purposive sampling was used to select participants from the accessible study population. This means that the researcher used her judgement in participant selection to procure participants who were particularly knowledgeable about the study subject (Polit & Beck, 2014:179). In addition, purposive sampling was employed to ensure that the study focus remained on participant insight, description, and understanding of the phenomenon as owned by the selected participants (Creswell, 2014:158; Babbie, 2010:193).

The researcher learned that some authors criticise purposive sampling as judgmental, because they believe that selection of participants relies on the judgement of the researcher (Creswell as cited in De Vos et al., 2013:392; Grove et al., 2015:270) which may affect the objectivity of the researcher. For this reason, the researcher selected and applied the best characteristic attributes possible to represent the population and phenomenon studied in the sample selection of this qualitative research design (Grove et al., 2015:270). These attributes included the carefully identified inclusion and exclusion criteria, selection of participants from across the accessible regions (see section 2.5.1, Inclusion criteria) and, the use of a participant information leaflet (see Appendix 4) to ensure comprehension by participants of the phenomenon being studied. Lastly, the response from the sample participants concluded the characteristic attributes required for this research study to safeguard objectivity by the researcher. 16 RNs responded to the invitations sent out, however only 14 participants participated as established through data saturation.

Qualitative study data collection usually comprises of individual or focus group interviews with the ultimate goal to obtain information-rich data (Sandelowski, 2000:338). In this study, individual interviews with study participants were conducted by the fieldworkers.

This interview data collection method served to communicate information required by the researcher (Babbie, 2010:274) to meet the objectives of this study.

This study was qualitative in nature therefore the researcher deemed it appropriate to conduct semi-structured individual interviews to collect data. Semi-structured interviews were a good idea because of the exploratory-descriptive research design used and with the aim to answer the set research questions (Grove et al., 2015:270). Thus, information-rich data was generated from participants. A responsive interviewing method, directed by an interview guide, developed by the researcher was used based on the sample interview protocol by Creswell (2018:191).

Interview guidelines as applied by the researcher are reflected in the interview guide (see Appendix 7) and comprised of the following: a heading for the guide, instructions, open-ended questions, probing words, spaces for recordings, and a log for documents collected to keep the focus on the problem identified and addressed in this study. The interview guide used by the researcher consisted of a set of open-ended questions which did not require fixed responses from participants (Grove et al., 2015:83), therefore allowing for rich descriptive information to be gathered until data saturation was reached.

Data saturation as reported by Bryant & Charmaz, as cited in Hennink et al., (2016: 592) is “the point at which gathering more data about a theoretical construct reveals no new properties.” These authors further argued that qualitative samples are typically defined, refined, and strengthened using an operational iterative approach, as was done by the researcher. However, despite such defining, refining, and strengthening, there is little methodological research that validates the sample size required to reach saturation for qualitative studies to support these estimates. Most sample size recommendations for qualitative research are thus experiential or “rules of thumb” (Bryman, 2012; Guest et al., 2006; Kerr et al., 2010; Morse, 1995 and Sandelowski, 1995 in Hennink et al., 2016:592).

These authors concluded that qualitative studies with a broad scope of the problem require a larger sample size than a study with a specific scope. Therefore, as this study had a specific scope related to the problem, the researcher aimed for 15 participants. By comparison, data saturation was finally reached when rich, high quality data was obtained and no new properties were revealed from the data gathered. For this study, a total of 14 participants concluded data saturation, with 13 personal interviews and one telephonic interview.

2.7 PILOT INTERVIEW

A pilot interview was conducted by the researcher to test and validate the data collection instrument study by applying it with a participant from the accessible population (Grove et al., 2015:45). The authors further explain that the purpose of the pilot interview in qualitative research is to determine defects, appropriateness, and the flow of the interview as well as the achievability of the proposed study as was done by the researcher. In addition, the pilot interview was done to test interview questions and to estimate the time and costs involved with the interviewing process, as suggested by Polit and Beck (2014:35).

Therefore, the purpose of the pilot interview in this study was to test and validate the data collection instrument, recording, and transcription of the interview. For the purpose of this study, the researcher used the first participant for the pilot interview. The researcher conducted the pilot interview since the subsequent interviews were conducted by the two fieldworkers as mentioned in the data collection section. The researcher analysed the transcribed data of the pilot interview as well as the observations noted and recorded in the field notes. The researcher met with the research supervisor, discussed the information collected as well as the observations made by the researcher during the pilot interview. The quality of the data was deemed to be sufficient, thus data collection continued and the pilot study's information was added to the main study. In the next section, a discussion of the trustworthiness of this study is provided.

2.8 TRUSTWORTHINESS

In this section, the researcher attempted to determine the strength of this study by evaluating the scientific rigour applied. Evaluation of the rigour applied serves to enhance credibility and worth of study findings, which in turn is measured against the specifics built into the study design, careful collection of data, and thorough data analysis (Grove et al., 2015:68). Scientific rigour was understood by the researcher to be the meticulous way in which data is collected, interpreted, and acknowledged, while taking note of the researcher's possible subjectivity in addition to their own understanding of the research study topic.

The researcher consulted a few texts to improve her own comprehension of research conduction, thus ensuring that aspects of rigour, such as credibility, dependability, confirmability, and transferability were adhered to. Polit and Beck (2014:323) added another aspect, namely authenticity. The application of these quality-enhancement strategies against the applicable criteria is reflected firstly, by the researcher's understanding of the concepts and secondly, in the concept clarification as it was deemed fit to clarify and align these concepts (Lincoln & Guba, 1985) as follows:

2.8.1 Credibility

Credibility is considered to be the most important of the five trustworthiness strategies and has the goal of demonstrating that the inquiry was conducted in such a manner to ensure that the subject has been accurately identified and described (De Vos et al., 2013:419).
The researcher subsequently attempted to safeguard credibility by providing an accurate description of the intended study phenomenon and determining how consistent findings were with reality (Shenton, 2004:63-68). The researcher applied reflexivity, a responsive interviewing technique, and gained input from experienced peers, such as the supervisor of the study, throughout this study as methods to ensure credibility. A pilot interview was also conducted to test the choice of data collection and this method was found effective.

2.8.2 Transferability

Transferability refers to whether the study findings can be applied to other settings (Shenton, 2004:69-71). However, the researcher took note of the fact that qualitative study

results are specific to a small number of particular settings and individuals; therefore, it is challenging to show that findings and conclusions are applicable to other situations and populations. In order to meet this criterion a detailed description of all study methods, processes, analysis and findings has been provided to facilitate transferability, where possible.

During data generation, comprehensive and thorough data-rich field notes were taken. All interviews were audiotaped and transcribed. An example of a transcribed interview was made available by the researcher (see Appendix 9).
As will be discussed in Chapter Three, 14 sets of data were obtained before saturation was reached and all of these were analysed to offer a detailed description. The processes of data collection and analysis are explained in detail later in this chapter.

2.8.3 Dependability

Dependability is when the researcher can ensure that a detailed report on the study processes is compiled, proper research practices have been followed, and that the research process is logical, well documented, and auditable (De Vos et al., 2013:420). The research steps taken for this study were explained chronologically, clearly, and consistently throughout this chapter as indicated earlier. All documentation and transcriptions made are available for auditing. An independent coder identified similar themes to those identified by the researcher and discussions of the demeanour, emotions, and behaviour noted in the field notes were verified by peers such as the supervisor of the study.

2.8.4 Confirmability

Confirmability indicates the study objectivity conducted to specify development of study findings from the data obtained. Therefore, study objectivity should reflect information provided by participants rather than from personal bias (Polit & Beck, 2014:323; Shenton, 2004:72). Similar to the criteria discussed in the section above, quality and objectivity can be verified by conducting an audit to confirm the actual aspects of the data. Actual voice recordings and transcribed data of voice recordings, based on the interview guide prepared by the researcher, were made available to the independent coder as well as the supervisor for verification and the researcher's reflection. This means that the researcher could prove the planned steps to ensure the objectivity of this study.

2.8.5 Authenticity

Authenticity refers to the extent to which the researcher fairly and faithfully reflects a range of different realities (Polit & Beck, 2014:323). Thus, authenticity emerges in a report when it conveys the feeling or tone of participants' lives as they lived it (Botma et al., 2010:234). The researcher applied authenticity through reflexive journaling, careful documentation of all planned actions, prolonged engagement with participants, verbatim transription of audio recordings as well as the description of the detailed dense and vivid data captured in writing. Vivid data captured will be discussed in detail in Chapter Three.

Table 2.2: Quality-enhancement strategies in relation to Lincoln and Guba's quality criteria for qualitative enquiry model and how it was applied in this study

Strategy applied througout enquiry	Credibility	Dependebility	Confirmability	Transferability	Authenticity
Reflexive journalling	X				X
Careful documentation, audit trail		X	X		X
Data Collection					
Prolonged engagement	X				X
Persistent observation	X				X
Comprehensive fieldnotes	X			X	
Audio recording and verbatim transcription	X				X
Triangulation	X	X			
Saturation of data	X			X	
Member checking	X	X			
Data Coding/Analysis					
Transcription rigor	X				
Intercoder reliability checks	X		X		
Triangulation (investigator)	X	X	X		
Searching for negative case analysis	X				
Peer review	X		X		
Inquiry audit		X	X		
Presentation of findings					
Documentation of quality enhancement efforts	X			X	
Rich vivid description				X	X
Impactful evocative writing					X
Documentation of researcher credentials, background	X				
Documentation of reflexivity	X				

2.9. DATA COLLECTION

Data collection involves formal guidelines developed by researchers to direct the collection of data in a consistent way (Polit & Beck, 2014:285). Therefore, it refers to an objective and systematic process which ensures a valid and ethical process. To explain the process that was followed to collect data for this study, the researcher created a narrated flow diagram, as indicated in Figure 2.2 below.

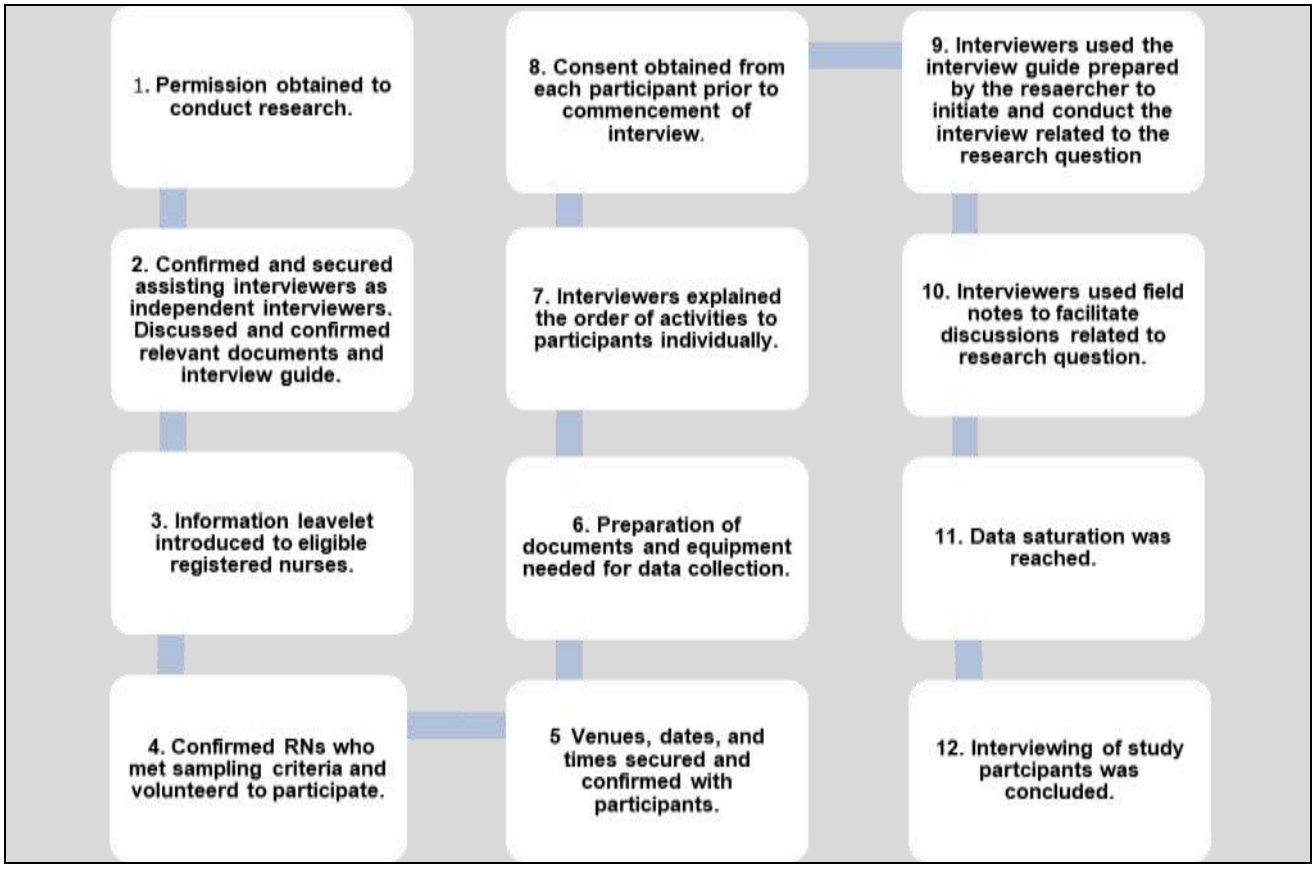


Figure 2.2: Steps followed for preparation and data collection process.

Ethical approval from the Health Research Ethics Committee (HREC) of the University of Stellenbosch was requested (see Appendix 1) and obtained for project ID**:** 8074 HREC Reference # S19/01/006 (see Appendix 2). The researcher then approached the following people in this particular order from this private hospital group for permission to conduct this study: the chief human resources officer to conduct this study within this hospital group (see Appendix 3) and the nursing managers from the accessible hospitals to access and invite study participants (see Appendix 3). Lastly, the learning centre managers of the involved regions were approached for the provision of quiet, soundproof, and private venues for this study as required for those participants who preferred to conduct interviews at these venues.

Two independent fieldworkers who had extensive interviewing experience in qualitative nursing research were employed to conduct the interviews. Independent fieldworkers were necessary to collect data, because they were independent from the participants before, during and after the CPD programme whereas the researcher was the national coordinator

of this programme and was therefore directly involved with the study participants. This direct involvement could have influenced study participation or provision of information by participants; thus, increasing the risk for bias in this study (Babbie, 2010:197; Creswell, 2014:207). Similarly, participants could feel obliged to provide 'correct' information rather than honest data that would be rich and descriptive. For this reason, the fieldworkers were employed to conduct all interviews following the pilot interview.

Both fieldworkers had experience in interviewing from interviews conducted for their own Masters degrees and other research studies. A confidentiality agreement was signed by interviewers to prevent disclosure of information. Availability of the interviewers was confirmed and their services were secured before the relevant documents, such as the interview guide, participant agreement, and making of field notes was discussed with them.

Next, the researcher obtained a list of 43 names from the accessible population with their e-mail addresses in accordance with the corporate student electronic data information site. The feasibility of interviewing participants from the regions as indicated before concluded the eligible participants, as they were more accessible than participants from the more remote regions. Electronic invitations that included a participant information letter (see Appendix 4) were sent to the identified accessible nurses. This letter explained the study objectives and the researcher's expectations, informed consent, information confidentiality to be shared, risks involved, benefits to participants, and lastly the right to withdraw from the study at any stage without any consequences. Although no form of injury during participation was foreseen in this study, the researcher made provision for the management of potential psychological distress.

A total of 16 participants responded to the invitation however, data saturation concluded only 14 participants; the researcher then confirmed dates and times for data collection at a learning centre venue which suited the participants. The researcher aimed to obtain an equal number of participants from each region to represent each region equally; however, response from participants finally determined the number of participants from each region.

The researcher then prepared all necessary documentation and equipment required. This included the correct number of consent forms, a voice recorder with extra batteries, a pen, and paper. The venues were prepared on each day of an interview to ensure availability of the necessary furniture as well as a clean and therapeutic environment, free of interfering noises, and where participants could feel safe to provide data. As mentioned earlier, the pilot interview was conducted by the researcher to test the interview guide.

After participants agreed to participate at a time and learning centre venue suitable to them, the process of interviewing commenced. Interviewers explained the order of activities to individual participants. Interviewers re-explained the purpose of the study, re-affirmed that participants had the right to withdraw from the study at any time, and informed participants that they could ask questions. These activities were performed to ensure that a sense of trust with the participants was established which would enable the collection of quality rich data. Details regarding these participants were only known to the

researcher to ensure privacy and confidentiality of the participants. Written informed consent was obtained from each participant prior to commencement of the interview.

The sample size of 14 participants, as identified by the researcher, was divided into the three selected regions to obtain a balance in number of participants per region. Interviews were conducted in English, as this is the language of instruction of the CPD programme and the chosen language at this hospital group. Participants who chose not to participate at the time of the interview were respected. Interviews were on average 45 minutes long. Upon participation, refreshments were provided and each participant was thanked with a gift of a narrow beam pupil torch used to assess patients' pupils. Once data saturation was reached, the final number of participants was determined which was 14 participants for this study.

In this section, the preparation for and collection of data as planned according to the flow diagram in Figure 2.2, (*Figure 2.2: Steps followed for preparation and data collection process*) was discussed, thus confirming a valid and ethical process. In the next section, the data analysis will be discussed.

2.10. DATA ANALYSIS

At this point, the researcher began with the rigorous process of data analysis by applying qualitative analytical methods to elicit clear, understandable, insightful, and trustworthy information (De Vos et al*.,* 2013:399). This eight step process described by Tesch (Creswell, 2014:198), is explained in the flow diagram in Figure 2.3. In the text following the flow diagram, the researcher explained how the feasibility of the data analysis was enhanced.

1. Get a sense of the whole
Researcher had each interview transcribed within a week of the interview. The researcher then read the transcriptions with care and notes were added as they came to mind. Thus, the researcher became familiar with the data.
▼
2. Increase of detail per transcription
Starting with the pilot study, the researcher took the transcriptions and read the data, taking cognisance of underlying meanings, recorded thoughts in margins, and added further information from field notes.
▼
3. Listing of all the topics
The researcher had all transcriptions completed by this point. A list of all topics that came forth was made. A mind map was drawn to group and arrange topics into possible clusters.
▼
4. Taking the list of topics and revisit data
The researcher then re-read all data, searching for pieces of information that matched identified codes and to see if new segments and codes emerged. At this point an independent coder and the researcher had their first contact to discuss and compare topics that evolved.
▼
5. Finding of most descriptive wording for topics and turning it into categories (Identify codes and themes)
The original list of topics at this point needed to be regrouped and linked together to form themes. Again, the use of a mind map assisted the researcher to clearly identify and highlight interrelations.
▼
6. Coding of data
Coding of data could be done by identifying abbreviations in the use of the themes however, the researcher numbered the categories as they fit the research questions directly.
▼
7. Assembling of data appropriate to each category/theme together
The researcher used different colour pens to indicate the information gathered from the interview transcripts. This data indicated in different colours was then tagged with corresponding colour tags and sequential numbering to assemble the data and literature to fit the themes and sub-themes.
▼
8. Recoding of existing data (if necessary)
Recoding in its entirety was not necessary. However, during writing up of data into report forma, the researcher established that some of the information had to be re-allocated as it was better suited to other sub-themes.

Figure 2.3: Linking Tesch's steps of data analysis with the study's activities (Creswell, 2014:198).

The application of the steps outlined by Tesch is explained here. Firstly, a sense of the whole was obtained. The process of data analysis started immediately after the interviews, when the recorded interviews were sent to the independent transcriber via the electronic software programme, WeTransfer. This electronic software programme is a cloud based service that exchanges files with large amounts of data. The sender informs the recipient via this programme when a file has been uploaded and is ready to be downloaded

(ArtzStudio: 2020). For this study the documents was only shared between the transcriber and the researcher.

Transcriptions were then returned to the researcher within a week. Safe storage of all the information was maintained by downloading the original audiotaped data onto the researcher's own computer. Thereafter, the audiotaped data was stored on an external hard drive, also owned by the researcher, to maintain confidentiality and to back up the data. The recorded interviews were then deleted from the recording device. All formal documentation, such as the written consent forms, were kept in a file in a locked cabinet at the researcher's private residence to ensure safe storage of transcriptions and to maintain confidentiality of participant information. The researcher then read all transcribed data to ensure an on-going process of reflection, making of notes, re-examining the text, and re-packing it into smaller pieces of information to become familiar with the data gathered (Creswell, 2014:198).

Secondly, detail per transcription was increased. The researcher understood from Green and Thorogood (2014:204), that in qualitative research analysis it is rarely sufficient to focus purely on the data collected. Subsequently, the researcher aimed to focus on additional aspects, including ensuring appropriate understanding of the meaning of data, thoughtful interpretation thereof, and use of the imagination to make links between data sets in this study (Green & Thorogood, 2014:204). Recommendations by Green and Thorogood, as described, were initially applied to the pilot study. The researcher read the transcribed data, taking cognisance of underlying meanings, recorded thoughts in margins, and added further information from field notes (gathered by the independent fieldworkers employed) as recommended by Creswell (2014;189).

Thirdly, a list of all the topics was made. Next, data analysis strategies such as sorting, organising, and reducing data into more manageable pieces was applied, followed by reassembling of data into meaningful stories (Schwandt as cited in De Vos et al., 2013:399). A list of all forthcoming topics identified from the data was compiled, using a mind map (see Appendix 10) to group and arrange topics into applicable clusters.

Fourthly, a list of the topics was taken and then the data was revisited. All data collected was re-read by the researcher, in search of parts that matched identified codes and to establish if new segments and codes emerged. At this point, the researcher consulted with an independent coder to discuss and compare topics that evolved (Creswell, 2014:198, Saldaña, 2014:37-38). In an attempt to enhance trustworthiness of the researcher, a reflective journal with large quantities of analytic notes on the research project, including coding of data analysis topics identified, was kept as recommended by Saldaña (2014:38).

Using the reflective journal, the most descriptive wording for topics was found and used as categories (codes and themes). Coding, specifically in qualitative data analysis, is described as a researcher-generated hypothesis/theory/concept to interpret data. It is further explained as the meaning of data being understood for later purposes of pattern detection, categorisation, assertion, theory building, and further analytic processes (Saldaña, 2014:4). Therefore, the researcher identified the most descriptive wording for topics, as found from the transcripts, and turned it into categories. The researcher then re-

grouped the original list of data-related topics identified and linked it together, thus forming the themes that emerged, as identified by the researcher (Creswell 2014:197). A mind map was used to assist the researcher in this process to clearly highlight interrelations between topics (see Appendix 10).

Coding of data could be done by identifying abbreviations in the use of the themes; however, the researcher chose to number the identified themes according to the research questions, as they fit the research questions directly.

Next, the researcher reassembled the data into diagrams with significant themes and meaningful stories, as shared by participants about their experiences, and then supported it with findings in the literature, as described by Creswell (2014:197). The researcher used different colour pens to indicate the information gathered from the interview transcripts. (see Appendix 11). Once the themes and explanations derived from collected data were read, reflexive thought and inductive analyses were made, as suggested by Green and Thorogood (2014:205). Data indicated in different colours were then tagged with corresponding colour tags and sequential numbering to assemble the data and literature to fit the themes and sub-themes. Recoding of existing data noted earlier, in its entirety was not necessary however during writing up of the data into report format though the researcher established that some of the information had to be re-allocated as it better suited other sub-themes.

The final step of the data management required the compilation of a research report. De Vos et al. (2013:428) emphasise that the report is often regarded as the critical phase in transformation of data into knowledge and the organisation is a reflection of the researcher's analysis and interpretation. To ensure that the compilation of the data reflected the true experiences, as shared by participants, aspects such as validity, rigour, and trustworthiness were employed. These concepts and how they were applied in this study are addressed in the section 2.8, Trustworthiness.

2.11. ETHICAL CONSIDERTATIONS

Three key ethical principles were followed to guide this study: autonomy, beneficence and non-maleficence, and justice were applied (Pera & van Tonder, 2014:53-59). These principles included anonymity, privacy, self-determination, fair treatment, confidentiality, and protection from harm and discomfort (Grove et al., 2015:107). The ethical principles applied by the researcher in this study will be discussed next.

2.11.1 Principle of respect for persons

To ensure respect for participants, it was necessary to uphold their right to autonomy (*Grove* et al., 2015:98). This meant that each participant was allowed to participate voluntarily without the risk of disadvantage or intimidation (Moodley, 2011:3). Voluntary participation was ensured by means of participants responding freely after detailed information regarding this study was sent electronically to the accessible population. In addition, informed written consent was confirmed at the beginning of each interview session by the interviewer. This means that voluntary participation as well as consent by

participants was confirmed with the choice to abstain or withdraw without any comeback at any time of the study (Pera & Van Tonder, 2014:53).

2.11.2 Principle of beneficence and non-maleficence

The right to be protected from discomfort and harm in research supports the ethical principle of beneficence. Beneficence states that one should do good and "above all, do no harm" to secure the well-being of participants at all cost (Bothma, Greeff, Mulaudzi & Wright, 2010:347). Equally important is the right to confidentiality and anonymity which support the participant's right to privacy of information (Grove et al*.*, 2015:105; Pera & Van Tonder, 2014:61; World Medical Association, 2013, para. 24).

Ethical clearance was obtained from the Health Research Ethics Committee (HREC) at the University of Stellenbosch (US) to approve this study (see annexure 4), thus safeguarding proposed ethical principles to be applied by the researcher. The right to 'do good' and 'do no harm' was applied when participants were informed in writing, prior to the study, about the research by means of the participant information leaflet (see annexure 8).

Information regarding the intended research study supplied to participants included the name of the researcher, a contact number, confirmation of approval for research to be conducted, project identification number 8074 (see Appendix 4) why participants were included, participant responsibilities, benefits and possible risks to participants, and protection of their information to maintain confidentiality and anonymity throughout. Participants were also provided with the opportunity to ask questions related to the intended study directly to the researcher prior to the commencement of data gathering. Study participation invitations were sent to participants via personal e-mail, thus ensuring confidentiality and anonymity.

Confidentiality and anonymity of study participants were further protected when they were provided with the option to choose a time and venue of their choice for the interviews to be conducted. In addition, the researcher obtained a confidentiality agreement from the two interviewers as well as the transcriber to declare that all information gathered for this study will be kept confidential (see Appendix 9). Any information to be shared would only be shared with the researcher. Hereafter, pseudonyms were allocated to participants during data collection, analysis, and writing of the research findings. Codes were used to indicate the different regions represented by the participants. Data was only available to persons who were directly involved in this study (Grove et al*.*, 2015:88). Furthermore, the researcher ensured all the data collected and transcribed was kept in a locked safe at all times.

Lastly, interviews were immediately downloaded from the recorder and saved on the researcher's computer which was safely locked by means of a secure password, only known to the researcher. Confidentiality and anonymity of participants was then enhanced by using file transfer services to the external transcriber via the electronic software programme, WeTransfer. Similarly, transcribed data was transferred from the transcriber to the researcher via WeTransfer, thus maintaining the confidentiality of participant information.

2.11.3 Principle of justice

The principle of justice comprises fair selection and equal treatment of all participants (Pera & Van Tonder, 2014:55), thus preventing discrimination. Fair selection and equal treatment of participants was applied by the researcher through an invitation leaflet (see Appendix 8) prepared by the researcher, which was then sent to all accessible eligible RNs via private e-mail. In addition to fair selection and equal treatment, fair treatment was applied in terms of possible risks and benefits to participants (Grove et al., 2015:99). Therefore, risks and benefits were explained to participants in the invitation letter (see Appendix 8).

Next, written consent was obtained from each participant prior to the interview, to provide them with the opportunity to withdraw from this research study should they wish or if they feel that they are at risk. In this way, equal treatment and opportunities were provided to all participants in sharing their perspectives to answer the research questions. Provision for debriefing opportunities as necessary were provided to all participants by means of the staff health clinic, INCON, which is available throughout this hospital group. In conclusion, recommendations by participants which may benefit future enrolled participants of this CPD programme were included. Recommendations by participants will be discussed in detail in Chapter Four.

2.11.4 Confidentiality

Though confidentiality is not an exact element of the Belmont report, it is an extremely important principle as it represents a vital element of human rights. Therefore, the principle of confidentiality applied in this study addressed the rights of participants (Grove et al., 2015:106). The researcher maintained confidentiality of all participant information before, during, and after data collection to protect study participants against public divulgement of the data they provided (Polit & Beck, 2014:377).

Confidentiality was upheld in various ways throughout this study. Participants were informed prior to interviews, by means of the participant information letter, that all their information will be kept confidential (Polit & Beck 2014:382). The transcriber as well as the interviewers signed an oath of confidentiality before initiation of interviews. The researcher, the interviewers, and the independent transcriber were the only people who listened to the actual and/or recorded conversations. All documents, such as the consent forms, audio material, and transcriptions were securely locked away at all times and only the researcher had access to this information. Audio taped interviews were immediately deleted from the recorder once the data was downloaded onto the computer. No references to explicit hospitals, nursing education institutions, lecturing staff or mentors were inferred or made in any of the text (Grove et al., 2015:112).

To further strengthen confidentiality in this study, the privacy of participants was protected by application of anonymity which was achieved by replacing the real names of participants and people they referred to with pseudonyms. Allocated codes were also used to indicate the region they represented, as reflected in the data analysis. (De Vos et al., 2013:119-120).

2.12. SUMMARY

In this chapter, the research design and methodology of this study were explained. A qualitative, explorative, descriptive design within the relevant study setting was used. This design enabled the researcher to gain more knowledge and insight on the research topic.

The target population was narrowed down to the accessible population. Study participants that met the inclusion criteria and volunteered to participate in this research study were approached and data was collected from these participants. Semi-structured interviews were employed which enabled the collection of data for the purpose of answering the research questions. Confidentiality principles were applied throughout the data collection process.

Data transcription was done by an independent transcriber following the signing of a confidentiality agreement. Data was analysed by the researcher by applying Tesch's method. An analysis of the collected data was formulated to compile recommendations for the future, as identified in this study, to strengthen the fit for purpose of this programme. Ethical principles were discussed and trustworthiness for this research study was explained.

In the next chapter, Chapter Three, the researcher will present the findings of the analysed data.

CHAPTER 3

FINDINGS AND DISCUSSION

3.1 INTRODUCTION

In Chapter One, an overview of this study was presented followed by the research design and method that were described in Chapter Two. In this chapter, the data obtained in the individual interviews are presented and discussed. The results are presented as themes and sub-themes, supported by verbatim quotations from the participants. To share the perspectives of participants as presented in the data without violating their privacy, participants were allocated fictitious names which have no relation to their actual names. The findings from the data were interrogated against- and substantiated with relevant literature.

3.2 FINDINGS

Registered nurses who participated in this study had been enrolled for and had experienced the same CPD programme while working in a variety of clinical settings within three of the five different regions of this private hospital group in South Africa. The main objectives of this study were to identify elements that had a supporting and detracting influence on the completion of a CPD programme in critical care, from the perspectives of registered nurses. The third objective was to explore and describe elements that may be adapted to strengthen the fit for purpose of this programme. An overview of the themes and sub-themes that emerged from data is first presented. In the following sections the three main themes and seven sub-themes that emerged from the data collected and analysed are discussed. Following this, each theme and sub-theme with supporting or opposing literature is discussed.

3.2.1 Overview of themes and sub-themes

Three main themes emerged from the data analysed. The first theme encompassed those elements that had a supporting influence on the completion of this CPD programme by RNs. This theme was named *the smooth road*. The second theme highlighted the elements that had a detracting influence on the completion of this CPD programme, thus it was named *the gravel road*. The third theme underlined the elements recommended by participants that may be adapted to strengthen the fit for purpose of this CPD programme. This theme was named *the roadworks ahead.*

Sub-themes emerged within each of the three main themes. In theme one, three sub-themes emerged: *readiness to learn*, *support*, and *communication*. Theme two comprised of two sub-themes namely *obstacles intra-person* and *obstacles extra-person*. Theme three captured the recommendations as provided by participants where two sub-themes emerged, viz. *changes intra person* and *changes extra person* to be made. A summary of the three main themes as well as the sub-themes identified through data analysis is provided in Table 3.1.

Table 3.1: Themes and sub-themes identified by RNs: elements that influenced the completion of a CPD programme in critical care.

Themes	Sub-themes
1. The smooth road	1.1 Readiness to learn.
	1.2 Support.
	1.3 Communication
2. The gravel road	2.1 Obstacles intra-person
	2.2 Obstacles extra-person
3. The constructions ahead	3.1 Changes intra-person
	3.2 Changes extra-person

In the next sections, the main themes and sub-themes will be discussed. Flow diagrams were used in the remainder of the chapter to illustrate the sub-themes and the elements identified that related to the sub-themes.

3.3 THEME 1: THE SMOOTH ROAD

As indicated, theme one revealed three sub-themes that described the elements of the *smooth road: readiness to learn*, *support,* and *communication*.

3.3.1 Sub-theme: Readiness to learn

Three components related to *readiness to learn* emerged from the data analysis. These include: the need to update and maintain knowledge (specifically, knowledge and skills fundamental in critical care), the need to be ready to engage with learning, and self-directedness. Figure 3.1 indicates how these components relate to the sub-theme of *readiness to learn*.

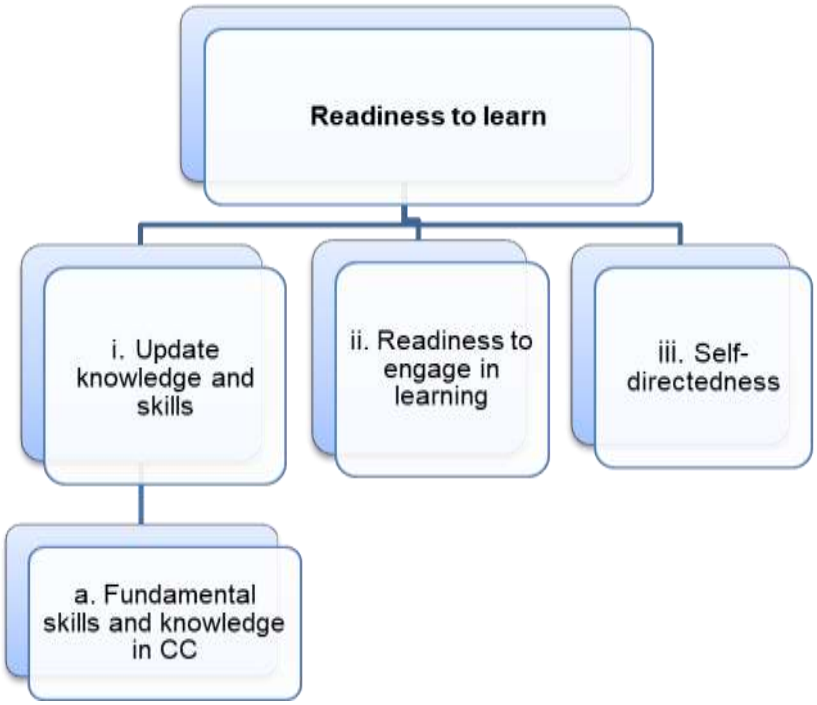


Figure 3.1: The components of readiness to learn.

When adults have a reason to learn something new, such as skills and knowledge related to their practice, r*eadiness to learn* is achieved (Cooper, 2009:502). Self-directedness, according to Smith (2002:4), in the context of learning is the process where a person identifies and initiates their own learning needs, with or without help from others. The individual then determines learning goals, followed by identification of appropriate human and material resources. Next, they select and implement appropriate learning approaches and evaluate the identified learning outcomes (Smith, 2002:4). In this section, each component identified in the sub-theme, *readiness to learn*, will be discussed.

i. Update knowledge and skills.

Participants verbalised their need to update knowledge and skills since they experienced that knowledge and skills acquired during basic nursing education become vague or outdated. Deirdre, a novice RN explained:

> "*I went into the CPD course because once you finish as a professional nurse, (meaning just graduated as an RN) you think you know a lot and actually you don't know anything"* (P9C, P1, L6-9)*. "It* (working in the critical care environment) *made me more aware that I need to broaden my knowledge. I need to learn more skills and it motivated me that I want to learn more"* (P9C, P3, L76-77).

Ellen added her view:

> *"But looking at where I am working now, where there aren't necessarily ICU trained people in quite unstable environments, initially when I went into the CPD, I thought some of the procedures were a bit basic, like neuro observations and things like that. But when you go and see the lack of knowledge that is out there, you realise that it is so important"* (P4C, P4, L119-124).

Akhona similarly said:

> "*Even though I failed CPD, but I have got knowledge that I got from CPD. I am very thankful for that opportunity that I was given".* (P2S, P3, L90-91).

In addition to the need to maintain and update knowledge and skills related to basic nursing, participants further verbalised their need to develop and update knowledge and skills explicitly related to the fundamentals of critical care nursing. Their reasons were as follows: the responsibility carried by RNs caring for the critically ill, the severe shortage of qualified CC RNs, and the employment of novice and inexperienced RNs. These reasons potentiate unsafe patient care and mistakes; therefore, the knowledge and skills required to close these gaps were sought to enable fundamental, safe, and quality critical care nursing.

Ellen provided her perspective:

> "*ICU is a place where you need your head screwed on all the time and be aware of your environment and changes in your patient. You don't even have the basic foundations to know why you are doing something. If you get handed a really unstable, critical patient, it's difficult to now have to think further than what is expected of you, and you don't even have the foundations*" (P4C, P1, L40-45).

Mary reaffirmed:

> *"I also didn't feel comfortable, because I didn't have the insight because if something did go wrong, I couldn't react, I couldn't pick up a complication"* (P2C, P1, L35-36). *"It all goes back to safe patient care"* (P2C, P2, L97).

James ended by motivating his perspective for the need and responsibility to update knowledge and skills:

> "A*ctually in medical there is a lot of advancement, clinical practices, because in medical, it is updating all the time. We are getting new information; there is a lot of research that is happening all over the world. It is so informative for us to keep updated with our knowledge. So that is why I decided to go to the CPD course" (*P4T, P2, L62-65).

Globally, skilled versatile nurses who maintain their capabilities in the provision of safe and effective patient care are highly sought after within health care organisations, thus necessitates nurses to gain and build lifelong learning through continuing professional development. (Govranos & Newton 2014:654; Nsemo et al., 2013:328). Similarly, the demand by society for competent and safe health care in South Africa requires health care professionals to use current skills and knowledge. Therefore, CPD for nurses is supported by the need to provide quality patient care, as required by the SANC (Viljoen et al., 2017:70).

Gould et al. (2007:605) and Heyns, Bothma and van Rensburg (2017:106-109) supported these observations with the statement that the role of CPD is not only to improve service, but to ensure and maintain the safety of patients and nurses. Thus, also confirming that

nurses have the responsibility to remain up to date and avoid mistakes which put patients at risk. This is consistent with the finding by William in 1996 (as cited in Chong et al., 2010:39) who suggested that knowledge aquired through basic professional eduction has a half-life of about two and a half years. Knowledge and skills that are not updated continiously will become outdated. Hence, RNs should developed and acquire updated and enhanced skills, knowledge, and professional behaviour by engaging in planned authentic activities for professionals in their practice environment.

Kemp and Baker (2013:541) as well as Marshall et al. (2017:273), asserted that knowledge and skills acquired through a CPD programme in cc can assist RNs to readily and effectively make sense of this environment and understand the context of their nursing practice to improve safe nursing care.

Participants further acknowledged that CPD promoted career development, confidence in practice, and the ability to think further. These aspects then enabled them to pick up patient problems and avoid errors, thus improving safe patient care. Ellen said:

> *"So it gives you the confidence to back up your nursing. So, it (knowledge) has more impact. So, you can practice with more confidence* (P4C, P1, L27-32).

Deirdre concluded:

> *"I can definitely speak for myself and a few students that have been doing it. It makes them excited of what is actually behind the nursing in ICU"* (P9C, P3, L89-92). *"It makes you think further, okay, but why. How can we better it, or how can we change the treatment* (P9C, P3, L96-97).

Studies in South Africa and the United Kingdom similarly reported on the impact of development and maintenance of skills and knowledge in the avoidance of practice errors (De Beer et al., 2011:2; Gould et al., 2007:605). This was confirmed by Chong et al. (2010:39) who motivated that nurses should develop significant skills and partake in life-long learning in order for the nursing profession to achive professionalism. In this way, evidence-based patient outcomes could be improved which in turn informed best practice care (Nsemo et al., 2013:328; Marshal et al., 2017:274).

Just as RNs understood the need to learn they experienced and understood the need to be ready to engage with learning, which was identified as the second element of *the smooth road*.

ii. Readiness to engage in learning

Readiness to learn is described as the level of maturation developed in a person whereby they become more focussed on task development (Smith, 2002:3). Data analysis in this study revealed that participants linked their need to update knowledge and skills to their own readiness to engage in learning, which was influenced by mental and physical readiness.

- Mental readiness

Knowles (2010:111) believed that as adults mature they become increasingly concerned with development of tasks and knowledge related to the practice environment. Attributes of mental readiness in this study were identified by participants as self-confidence, perseverance and resilience, and responsibility. Peter, a novice RN to critical care shared his experience about mental readiness from a self-confidence, perseverance, and responsibility perspective:

> *"The first time, I stopped the course. I'm not feeling confident enough (P5C,* P2, L 58-60). *I just did not feel right yet to take on such a big responsibility (P5C,* P2, L 62-63). *So, then the next year I applied again, I am very glad I did it. I think my mind-set was right"* (P5C, P2, L66).

Jane also a novice RN to the critical care environment explained:

> "*This was the second time I did the CPD course. The first time that I did it, I actually had a patient who had a bypass* (P3C, P2, L48-49). *At CT he actually cardiac arrested and I was alone. So that was very traumatic* (P3C, P2, L51-51).

James, who is an experienced CC RN, said:

> *"So I can feel that we are more responsible, and we need to make decisions at some certain points. It's not that we are making the actual decisions, but we are more involved in the decision making. So the nurses are handling the whole unit. Actually, sometimes we have to make some decisions. Actually they,* (the doctors), *always ask us our opinions also" (*P4T, P3, L85-87).

A study by Gould et al. (2007:608) reported that practitioners at the same stage in their career may see things differently; therefore, the needs of individuals can change according to the stage in their career path. Cooper (2009:504) on the other hand reported that nurses are often frustrated with available professional development offerings and support because they do not match their ability and experience level. Thus, the extent of readiness to learn in adults is influenced by the level of maturity similarly found in this study.

Findings by Marshall et al. (2017:273) argued that 'ample' CC nursing experience for nursing teams is required to care for such patients. These authors further emphasised the importance of medical staff in the CC environment to be immediately available to manage emergencies which further necessitates that a myriad of decisions be made in a rapidly changing clinical situation. Since RNs working in the CC units in this hospital group were mostly novice and RNs new to this environment, RNs find it challenging to manage CC related emergencies and to rapidly make the necessary decisions.

In South Africa, private practicing physicians and specialists in the private healthcare environment are not always present in the CC environment as they also have to attend to various patient-related needs. As a result, RNs are the healthcare providers attending to critically ill patients for the 12-hour shift. These RNs are often the first to attend and

respond to complicated or life-threatening situations. So, it is understandable that the more experienced RNs will attend to such situations rather than novice RNs. However, the dire shortage of CC qualified RNs combined with the high stress levels that this environment presents may contribute to the mismatch of support to novice RNs during practice exposure where they should develop professionally which in turn affects their mental readiness to learn such through participation in a CPD programme. Similar to mental readiness RNs should be physically ready to learn.

- Physical readiness

Similar to mental readiness, participants reported how physical readiness, such as an environment conducive to learning e.g. study material, access to technology and a library, and family responsibilities influenced their readiness to learn. Participants experienced the consequences of physical readiness when engaging. Peter reported:

> *"So the first time I did the course, I mean it's a balance. You have to find a balance in home and also in the course itself. Things happen in life that is unpredictable and especially of you are working and studying and you've got home responsibilities it makes things difficult. So then I cancelled (P5C,* P2, L58-60).

Ellen explained her readiness related to an environment conducive to learning e.g. study material, access to technology, and access to a library when she said:

> *"At the training development (the training department of the hospital), the learning and development facilitator, they were also always available and helpful, and their venue was open for us to write the tests and things like that. Yes, she was also available if we needed help finding a textbook. She has a little library and that"* (P4C, P3, L95-98).

These findings are consistent with reports by Gould et al. (2007:607) and Viljoen et al. (2017:71) who stated that the demands of undertaking CPD conflicted with home and domestic commitments to achieve desirable work-life balance. Draper and Clark (2007:516) questioned the knowledge database by educators on student experiences of the impact of post qualification part–time studying on personal and professional demands and commitments for healthcare professionals. In this study, some participants disengaged from learning while others persevered. On the whole, data in this study confirmed that as RNs mature, they became more self-directed in their learning needs.

iii. Self-directedness

Once adults, such as RNs, become more concerned with practice-related skills and knowledge development, such as work-related developmental areas or gaps that they identified in their knowledge and skill base, they initiate actions to fill or close such gaps (Smith, 2002:3). This author further explained that to close such developmental gaps, adults should implement a chronological set of actions. Emphasis is therefore placed on the fact that such actions should be learner-driven, grounded in the philosophy of CPD (Griscti & Jacono, 2006:449, Sherman & Chappell, 2018:1).

Actions to be implemented by adults comprise a set of chronological actions namely, diagnosis of learning needs, followed by the formulation of learning goals. Next, human and material learning resources should be identified and appropriate learning strategies should be chosen and implemented. Lastly, learning outcomes must be evaluated to fill learning gaps. Figure 3.2 indicates the order of the actions involved in the process of becoming self-directed.

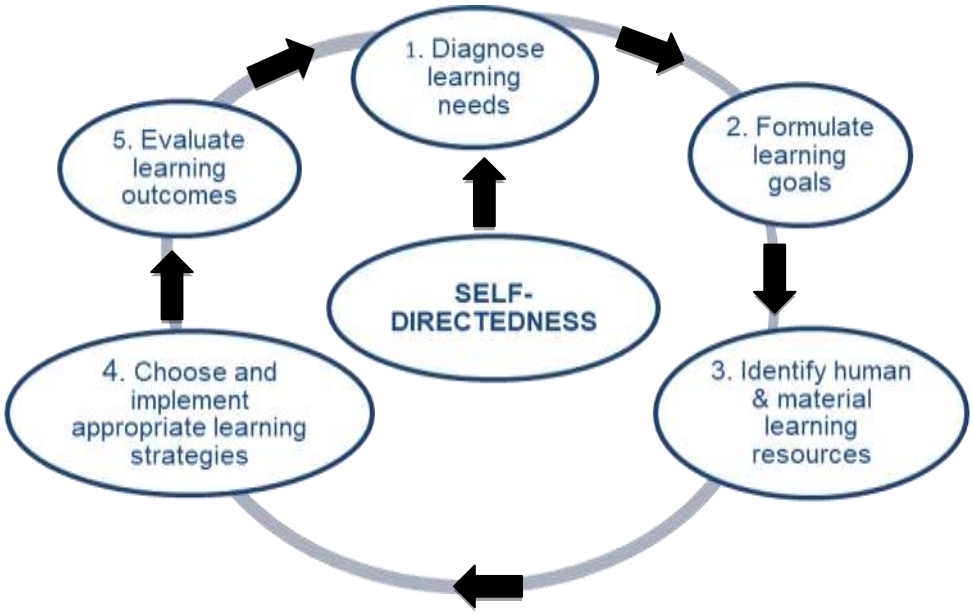


Figure 3.2: The chronological actions of self-directedness proposed by Smith (2002:4).

The first two actions of being self-directed emerged as important elements in this study. These actions are discussed below while the remaining three actions emerged in relation to the sub-theme of support and are discussed in the following section (see section 3.3.2 Support)

- Action 1 - Diagnose learning needs

Learning needs are skills and knowledge identified by the individual to be developed to close gaps identified in practice (Cooper, 2009:502). Firstly, participants diagnosed their need to learn as individual needs. Litha explained:

> "*I have been practicing in ICU so personally professionally I wanted to grow* (P6C, P1, L24-25). She continued: "*I wanted to know more about the area that I work at, so that I could be sure of what I was doing*" (P6C, P1, L30-31).

This was supported by Peter:

> "*I didn't feel comfortable, because I didn't have the insight. Because if something did go wrong, I couldn't react, I couldn't pick up a complication" (*P5C, P1, L35-36).

Sherman and Chappell (2018:1) emphasised that learning actions, such as engagement in CPD activities, should be learner-driven. Participants thus diagnosed their learning needs based on gaps identified by themselves in their own skills and knowledge required by their area of practice.

- Action 2 - Formulate learning needs

Following diagnosis of learning needs, participants formulated their own learning needs. CPD activities have the purpose of meeting learning needs and enabling participants to reach pre-set goals, based on past experiences, readiness to learn, learning orientation, and the call to learn. When formulating learning needs, adults must be aware of the intended reason for learning (Cooper, 2009:502). Personal learning goals were identified as stated by Ellen:

> "*So I had to do the CPD course in order to do my post graduate ICU. So that was the main driving force for me dot do it. It gave me the opportunity to do my postgrad* (P4C, P3, L67-78). *"Also, it laid a good foundation for what to expect in the postgrad*" P4C, P3, L67-69).

Peter said:

> "*I pushed myself because the other motivation was to become an ICU nurse. I wanted to do the CPD course"* (P5C, P5, L61-65). *"My one big motivation was please let me do the ICU course. I want to understand what the hell I was doing; I want to have insight"* (P5C, P5, L61-65).

Emily identified her goals as:

> "*To feel more empowered and confident in what I am doing. So that makes me satisfied at the end of the day* (P8C, P2, L44-45). *To prevent mistakes* (P8C, P2, L49).

A common goal identified by participants in this CPD programme was to gain entry to the SANC-approved post graduate diploma (PGD) or Honours degree in CC nursing science, currently offered through universities in SA, as the successful completion of this CC CPD programme is an employer pre-requisite for support in formal postgraduate or post-basic programmes. Although Mnguni and Langa (2015:7) emphasise the importance of identification of learning needs and goals to enable RNs to link their learning to practice, some participants verbalised their need to learn as an organisational requirement.

These findings are supported by multiple studies that stated that the most common factors for CPD are to gain professional knowledge and advancement, to comply with authority, and acquisition of credentials. These studies further indicated that the most prominent factors that influence identification of learning needs are the need to improve professional knowledge and skills and improved ability to serve the public (Chong et al., 2011:39; Griscti & Jacono, 2006:451, & Nsemo et al., 2013:329, Hang & Xi, 2018:70).

The next three actions of self-directedness namely, identification of effective human and material resources, selection and implementation of appropriate learning approaches, and evaluation of identified learning outcomes as described by Smith (2002:4) are discussed in the next section.

3.3.2 Support

In sub-theme 3.1, the first element of *the smooth road,* was identified as *readiness to learn.* In this section, the second element of *the smooth road,* identified as *support* is discussed. As mentioned in section 3.1 under *self-directedness*, the third action required to be taken by adults in self-directedness is the identification of human and material learning resources. Therefore, the researcher chose to classify human and material resources as support which was divided into two groups, namely organisational and educational support. Figure 3.3 indicates the identified classification of support.

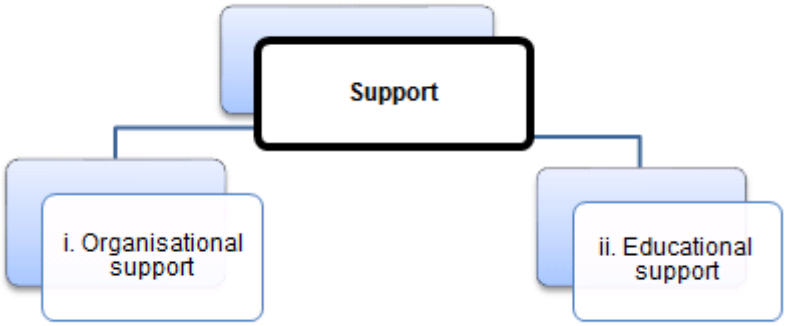


Figure 3.3: The components of support.

i. Organisational support

Hegney et al. (2010:143) and Viljoen et al. (2017:71) remind us that organisational support means support provided by the employer. The SANC emphasises the importance of organisational support to provide opportunities for nurses to develop, update, and integrate knowledge, skills, and behaviours which could be provided through opportunities such as CPD platforms (Mnguni & Langa, 2015:7). For this sub-theme, participants identified the importance of initiating and seeking support as the responsibility of the individual.

- Human resources

Smith (2002:4) argued that when adults engage in learning, they often need human support, such as a mentor or facilitator to guide and assist them in their learning, understanding, and application of new information and skills. Thus, a mentor can be persons such as a unit manager, CC qualified RNs, doctors, and even peer students. Participants indicated the availability of support, particularly when they initiated the request for assistance, as follows:

Deirdre said:

> "*You just had to go the extra mile in getting the necessary support from people"* (P9C, P4, L120-121).

Nosipo said:

> *"My biggest supporter in the unit was my unit manager, and there was a guy in ICU, his name is XX. He is an ICU sister there. I think he has been in ICU for a long time. He is more experienced. He was supporting me a lot and I learnt a lot from him. When I had to go to ICU, and I knew he was there, then my mind was at ease"* (P3T, P7, L245-249).

Ellen explained:

> *"Even with the doctors seeing you collecting rhythm strips, they ask okay, what are you doing, and then they're also open to then teaching and you just gain a lot of information. It's great, but it all depends on how you as a student put yourself out there"* (P4C, P3, L81-84).

Litha confirmed:

> *"I preferred to do most of mine* (practical procedures) *with the ICU trained mentor, or person I can learn more from"* (P6C, P7, L203-204).

Ellen reported on the support by peer students*:*

> *"Luckily, I was doing it with a few other colleagues, so then you can kind of bounce information off of each other"* (P4C, P2, L70-71).

Hang and Xi (2018:71) confirmed that the services of doctors are often required to assist and teach RNs so that the RNs can grow in their clinical field while simultaneously enhancing patient safety. Many medical specialists involved in the critical care environments in this private hospital group acknowledge that patient care is dependent on skilled and knowledgeable RNs to care for their critically ill patients. A study by De Beer et al. (2011:1) emphasised that a high level of technological practice abilities, scientific knowledge, and developed capabilities are required by nurses to practice in the CC environment and this is supported by Heyns et al. (2017:105). Similarly data analysed in this study revealed many RNs required an extensive need for human resources to acquire fundamental skills and knowledge in CC nursing.

Human support evidently played an essential role for participants during this CPD programme. Material resources were found to be equally important as will be discussed next.

- Material resources

Textbooks, a study guide, and information, such as organisational policies and scientific practical procedures with corresponding assessment instruments, accounted for material resources. Hegney et al. (2010:142) reported that a study done in Australia reflected poor input of employers to the costs of CPD however participants in this study experienced the opposite. This means that participants in this study experienced an advantage to nurses in other studies. The following are direct quotations from participants on material resources. Mary said:

> "*Yes the study material was definitely sufficient and also, because I had all the books, textbooks and things from the previous year, I could research other things sufficiently"* (P2C, P4, L48). "*The assessment instruments and procedures were also adequate*" (P2C, P4, L148).

Peter explained:

> *"The course opened up new doors, a new understanding"* (P5C, P2, L71). *"I could implement all I learnt and understood. I could better understand. Not fully understand everything yet, every concept, but I could already feel an increase in confidence and a commitment towards better, safer patient care, and also able to pick up smaller details, and changes in the patient's observations and vital signs, and patient's care, and improving also infection precautions and communication with doctors"* (P5C, P2, L76-81).

Structured study material assisted participants to focus on relevant and current fundamental CC knowledge and skills required by RNs. One such example is the information required by novice and experienced RNs to address safe and quality nursing care. This is consistent with the findings by Sherman and Chappell (2018:4) who asserted that study materials serve to provide current evidence-based practice data to address healthcare gaps identified by nurses. Similarly Mnguni and Langa (2015:7) believe that CPD for nurses should be affordable, accessible, available, and of high quality.

Innes and Calleja (2018:62) and Hegney et al. (2010:143) reported that although it is difficult to determine if those who attend CPD courses are implementing what they have learnt, continuing education should have the intention to ensure healthcare practitioners' knowledge is current. These authors further reminded us that a concerted effort should therefore be made to make CPD attainable and realistic for nurses. For this reason study material for this CPD programme is updated every 3 years unless otherwise required.

Following organisational support, participants reported on the importance of educational support in their learning.

ii. Educational support

Educational support in the context of nursing refers to provision of essential assistance to facilitate professional and personal development in the clinical environment, such as in the CC environment (Gohery & Meany, 2013:321; Lamb & Norton, 2018:180).

Participants voiced that the role of educational support by means of a CC qualified educator, the structure of this CPD programme, and interactive discussions directly and via video were helpful in their learning. The structure of this programme, with feedback after written tests and theoretical activities in the portfolio of evidence, and practical procedures learned about and assessed, aided to develop critical thinking and to change thinking where needed. In addition, the structure of this course provided different opportunities to choose and implement appropriate learning strategies such as gathering factual information, reflection on what was learnt by means of the portfolio of evidence, on the spot learning situations and providing their understanding of theory during written tests.

It was after these learning strategies that participants could evaluate their learning objectives.

Nosipo explained:

> "*Yes, because let's say XXX learning centre, we are focussed with these questions and we answer it like this, in YYYY they are faced with the same question as we have and then they answer the other way, then when we combined it together, then we can see who was wrong. Then it makes all know what they are doing. It gives them a guideline on how things should be done*" (P3T, P10, L354-359). *"It became easy, because going hand in hand with the practical things what we were doing and the hospital, as soon as you are in class, then it explains more and it makes you be eager to learn"* (P3T, P7, L225-227).

Mary verbalised:

> *"So the days that we came into class to do our theoretical component were really nice*". *That also brought the procedures in, in the sense of theoretically. So if we were covering a certain section, whichever procedure went with that, was more or less touched on in class*" (P2C, P5, L182-184). *"The assessments were also good in the sense of the theoretical tests that we had to do"* (P2C, P5, L187-192). "*So it gave you a good basis of where you were with your theoretical knowledge and the fact that there was also a supplementary test would also help you in the sense of knowing that if you had a problem with one of your first tests, you knew where to improve and what to focus your attention on more than what you did previously" (*P2C, P5, L187-192). "*If your test came back and it was good results, then you can see you've put in enough time and effort into your work, and you got the results back that you wanted*" (P2C, P5, L206-208).

Toliswa verbalised that after her basic RN nursing education, the CPD programme fulfilled her set learning outcomes to update skills and knowledge:

> "*But with the CPD course, it goes hand in hand with what I am using in the unit"* (P2T, P6, L219-220). *"With the basic course* (undergraduate course)*, it's sort of like the skills of where to start. So, with the CPD course, I felt it went more detailed for me. They went more detailed in such a way whereby I don't get confused on what to do"* (P2T, P6, L222-226).

Ellen confirmed:

> *"So for me, getting to learn more and more* (about ICU) *just makes me happier in my job, because really, you can see yourself improving. You can see patients getting better"* (P4C, P2, L, 43-44). *"To be able to have a better relationship with doctors, because you can understand a bit deeper what they mean"* (P4C, P2, L45–46). *"Your work life actually becomes a lot easier, because you grasp concepts quicker, you can consult with the doctors and your patient also has that extra trust in you when they can see wow, she knows what she is doing"* (P4C, P2, L47-49).

Therefore, the data collected for this study is in line with findings by Waraporn and Rozzano (2011:1) who observed that understanding the experiences of nurses in learning fosters development of innovative strategies and interventions that assist them in

accomplishing and upholding competencies of human care, such as critically ill patients. Of further importance is the specific need to evaluate the effectiveness as well as the impact of CPD programmes on the nursing workforce and outcomes for care (Chong et al., 2011:44).

The last two actions of self-directedness were then implemented simultaneously in this study. Participants selected and implemented appropriate learning strategies and they evaluated their identified learning outcomes as reported by Smith (2002:4). To enable learning needs through support, participants lastly reported on the importance of communication related to learning.

3.3.3 Communication

Following *readiness to learn* and *support*, *communication* emerged as the last theme in the *smooth road*. Communication included verbal and written communication which concluded the first research objective identified in Chapter One - to identify the elements that had a supporting influence on the successful completion of a CPD programme in CC from the perspectives of RNs. The components of communication are indicated in Figure 3.4.

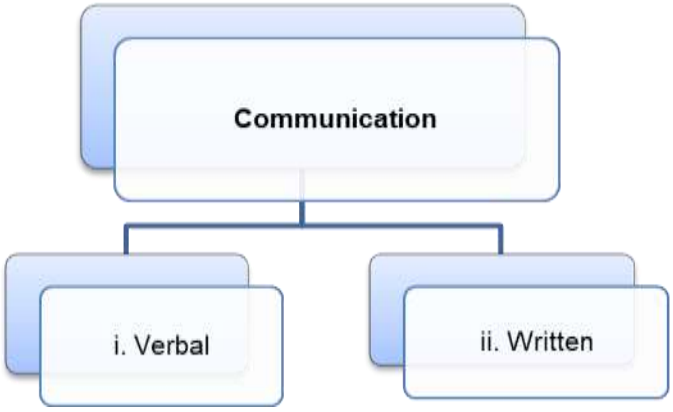


Figure 3.4: The components of communication.

i. Verbal communication

Communication, a basic yet important life skill is a crucial interaction in every moment of the day (Muller, 2009:201-202). Communication, whether verbal or written, is the spoken interactive behaviour between people where a message is conveyed from one or more persons to another. Effective communication suggests that the message received is the same as the message intended, thus, the ability to convey ideas and meaning to another person in a comprehensible manner.

Participants verbalised the vital importance of communication, the absence thereof, or miscommunication by RNs in the practice and learning environment. Communication as verbalised by participants in this study included the clarification of information, relay of information, different accents, and communication by the multidisciplinary team, as well as what and how to communicate. They also reported on the effect of communication with relevant people in the situation and environment on their learning goals. Deidre stated:

> *"So, if you think that you are not understanding something, be open to say I don't understand, I must go further, or can you help me to understand it more"* (P9C, P2, L65-76).

Ellen explained:

> *"I think now seeing government versus private, the private nurse really does a lot of the coordination between teams, and has to do a lot of the communication, like this is what the dietician said, and this is what the physio said, and relay all this information. Often the communication doesn't really go all the way, whereas in government you have those ward rounds where everyone, the whole multidisciplinary team is there, which I think is quite beneficial"* (P4C, P4, L150-155).

Emily continued:

> " …. *But the thing is the newcomers should actually ask and find out*" *(*P8C, P5, L78-80*).*

Jane concluded:

> *"Learn how to communicate"* (P3C, P3, L112). *"Because it's so important especially if you work with a critical care patient"* (P3C, P3, L115). "*The information, like the handover, you need to know exactly what to do. Yes, the whole team to communicate and to say what's going on, because sometimes what we get is the doctors would have a discussion, and I mean, it's not that they have that discussion in front of us, so you don't really know"* (P3C, P3, L119-21).

A study by Chong et al. (2011:43) reported that one of the factors that motivated nurses to participate in CPD is to improve communication skills. Bucăţa and Rizescu (2017:50) asserted that communication facilitates interaction between members of the working team. These authors stated that an important role of communication is to collect information from team members, such as the multidisciplinary team, in an attempt to stay informed about anything that might affect their work and responsibility. Similarly, participants in this study verbalised the need for and value of effective communication and communication-related skills as a means to seek, internalise, and apply or transfer knowledge and skills learned. Effective communication therefore played a crucial role in their learning, similar to written communication.

ii. Written communication

Written communication has similar requirements to verbal communication, as indicated in the previous section however, communicating in writing is even more important when it comes to learning. Prabavathi and Nagasubramani (2018:29-31) remind us that conveying of complex information serves better in written form. A written document allows the receiver to read it repeatedly until the entire message is understood. To illustrate this point, participants had access to written communication in the form of textbooks and other forms of literature to assist them in their learning during the CPD programme. Mary said:

> *"Yes, we did,* (receive written tests back), *the following contact session that we had in class. We received it back, and there you had also had time to see where you went wrong, if you went wrong, or you can see the positivity out of it as well"* (P2C, P5, L195-197).

Akhona said:

> *"Maybe this time she thought let me just change the way of asking questions and phrase it another way. I don't want her to change the way she phrases. Maybe with me it was the understanding, I didn't understand the question maybe, because this is my second language"* (P2S, L283-288, P3). *"But we were given books and everything to study, so I missed it* (P2S, L71, P2). *So, I found it very difficult with the questions, the way they asked it, but maybe I didn't understand the questions"* (P2S, L88-89, P3).

Similarly, these authors further suggested that sometimes an open discussion is required to reach consensus on information. In these cases, a discussion is only possible by means of oral communication. Thus, participants were exposed to written communication by means of textbooks and other information acquired as well as information which they had to provide. Participants provided a portfolio of evidence to communicate their understanding of fundamental knowledge and skills pertaining to CC nursing, thus demonstrating their ability to learn these fundamentals and communicate them back in practice. In this way participants had the opportunity to read information provided to them and by them repetitively until they could understand entire messages.

Theme one, identified as the *smooth road*, with the related sub-themes was discussed in this section to address the elements that had a supporting influence on the successful completion of a CPD programme in CC nursing from the perspectives of RNs. In the next section, theme two will be discussed, which was identified as the *gravel road*.

3.4 THEME 2: THE GRAVEL ROAD

In theme one, *the smooth road* was identified and discussed. In this section, *the gravel road w*ill be unpacked and discussed. *The gravel road* represents the elements that hindered RNs from successfully completing this CPD programme. Two sub-themes were identified in *the gravel road.* These were: *obstacles intra-person* and *obstacles extra-person*.

3.4.1 Obstacles intra-person

The first emerging element that hindered participants in their CPD programme was identified as obstacles that came from within themselves. Therefore, this element was named *obstacles intra-person*. Data revealed these obstacles as lack of readiness to learn and personal life and responsibilities. Figure 3.5 indicates how these elements related to the sub-theme of *obstacles intra-person.*

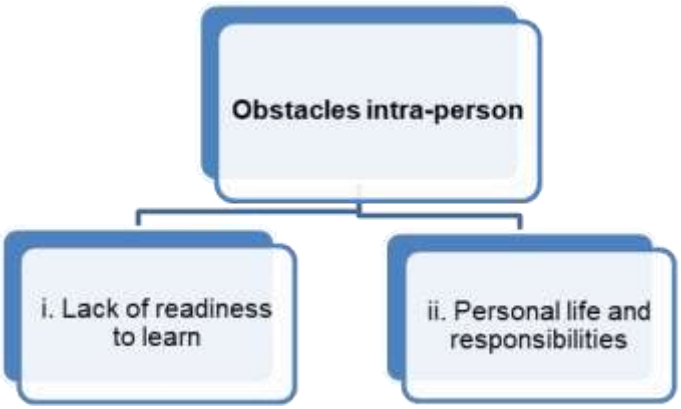


Figure 3.5: The components of obstacles intra-person.

i. Lack of readiness to learn

In theme one, *readiness to learn* was unpacked and described. In contrast to *readiness to learn,* lack of readiness to learn contributed to participants' failure to successfully complete their CPD programme. Govranos and Newton (2014:656) remind us that adult learning relates to their confidence and competence relative to the subject matter, ability, experience and style of the teacher, motivation, and internal and external influences that shape the learner. Participants identified poor attitude and values, poor time management, not making use of available resources as well as insufficient knowledge and skill abilities as their reasons for not being ready to learn.

Nosipo verbalised:

> *"My mind was too relaxed. So, I was not making a habit of taking books, reading and studying, things like that. So, I can say I invested less effort on studying, than my every doings"* (P3T, P9 L310-315). *Because I was used to a lecturer standing in front of me teaching, giving notes, things like that. So this thing (CPD course) is a new thing. It's nice but not nice, but sometimes it helps because when you reflect on some questions, then you're like oh"* (P3T, P9 L327).

Mary's perspective:

> *"So I think a lot of people come here and they think because it's a four-day class, how difficult can the course be? It's just going to be a quick cram session and then we go and write the test. So, theoretically it's up to the student to produce more. I think that if they then at the end of the day are not passing the course due to theoretical components, that's all up the student. That's got nothing to do with the institution that they are doing the CPD at"* (P2C P6, L 241-244).

Akhona said:

> *"I think it's 2018 I went for the CPD course. It was a new thing. I failed it, in the first place, maybe because of age or something, I don't know, but I think because of my brain"* (P2S, L66-68, P2). *I could understand what I was asked, but maybe the way I was answering, it wasn't the way they wanted. I answered like what I am doing in the unit. But we were given books and everything to study, so I missed it"* (P2S, P2, L66-68).

Jane reported:

> *"This was the second time I did the course". Mavis* (the educator) *will tell you that as well. My theory is always a problem. It's not that I don't understand it. It's that I don't know how to – no, no, no, sometimes I struggle to put it on paper"* (P3C, P2, L48).

The purpose of ongoing professional development is twofold: to safeguard the skills required to provide quality patient care and to increase job satisfaction which in turn has been reported to improve provide quality and provide cost-effective patient care (Cooper, 2009:502; Sherman & Chappell, 2018:4). Therefore, employers who appreciate this connection should take action to promote job satisfaction through provision of CPD opportunities. However, nurses should be ready to learn, as further emphasised by this author. The conclusion suggests that participants are able to find any excuse to justify the unsuccessful outcomes on the CPD programme, whether valid or not, however the real reason is that they were not yet ready to learn.

Oppositely, Govranos and Newton (2014:659) argued that nurses who are highly motivated and appreciate CPD understand the link between CPD and the work environment. Therefore, any barriers to learning and meeting of learning needs will be successfully managed.

Along with a lack of readiness to learn, participants revealed the effect of their personal life and responsibilities on their learning.

ii. Personal life and responsibilities

The demands of CPD conflict with domestic and home responsibilities and are perceived as a barrier to achieving a desirable work-life balance (Gould et al., 2007:607, Viljoen et al., 2017:73). Participants in this study similarly reported barriers such as family responsibilities, involvement in community activities, and the unpredictable.
Unathi said:

> "*I did feel the need for it (the CPD course), but I think the timing was not"* (P1S, P3 L112). "*There is a responsibility for church. I've got projects at church, at work I have to meet the standard. I have to pass. I have to have my kid write homework and all that, after work. So, it's been, this whole three years, it's been the most hectic years ever, in my life"* (P1S, P3, L120-123).

Peter confirmed:

> *"So the first time I did the course, I mean, it's a balance. You have to find a balance in home and also in the course itself, because like Mavis (the educator) always told us, life happens. Things happen in life that are unpredictable, and especially if you are working and studying, and you've got home responsibilities, it makes things difficult* (P5C, P2, L57-60).

Akhona confirmed:

> *"The reason for ICU, when you do overtime, the money is not the same as in the wards"* (P2S, P10, L414-145).

The perspectives of participants in this study are in line with the findings in Malaysia (Chong et al., 2010:3) in Australia (Hegney et al., 2010:144) and in the Netherlands (Brekelmans et al, Maassen, Poell, Weststrate & Geurdes, 2016:13) where the authors observed that time and family commitments are factors affecting the flexibility of nurses' availability for CPD, such as arrangement for household chores and child care, travelling, and access to computers during non-working hours, training costs. A study done by Viljoen et al. (2017:74) further reported that nurses experienced a financial loss when participating in a CPD programme, as it affects their availability to work over-time, which is financially more attractive, especially in the current economic circumstances, also similar in this study.

Karaman (2011:5) suggested online nursing CPD as an alternative, as this mode may provide nurses with many advantages compared to face-to-face programmes. Access to online CPD activities may provide nurses with opportunities to engage in CPD at a time more convenient to them. However, this author's experience has demonstrated that many nurses in this hospital group lack sufficient facilities at home to access such online programmes.

Not only did participants experience *obstacles intra-person*, but there were also *obstacles extra-person*.

3.4.2: Obstacles extra-person

The second emerging element that hindered participants during their CPD programme was external obstacles, thus, it was labelled *obstacles extra-person*. The data revealed that these obstacles included a lack of support at work, a high workload, and a stressful working environment. Figure 3.6 indicates how these components related to the sub-theme of *obstacles extra-person.*

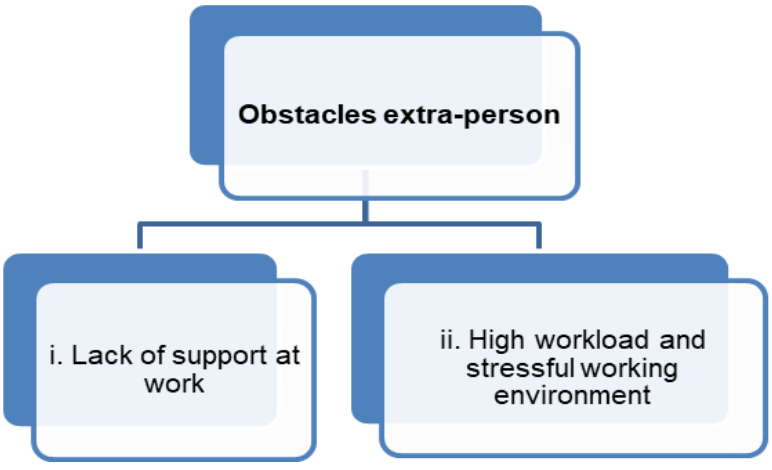


Figure 3.6: The components of obstacles extra-person.

i. Lack of support at work

Brekelmans et al. (2016:45) remind us that nursing is the glue that holds the complex system of care within hospitals together. Furthermore, nurses are required to be flexible, critical thinkers striving to deliver safe and effective patient-centered care (Govranos & Newton, 2014:656). Yet, nurses experience a lack of support at work when skills and knowledge need to be updated. Incentives offered by the employer are well reported as well as the lack of support from the employer (Chong et al., 2010:39).

Participants emphasised their need for support as time and accompaniment from an educator to assist with integration of theory into practice and a mentor or clinical facilitator to assist with the practical integration of knowledge. Their motivations included the lack of available specialised CC RNs, the lack of experienced CC RNs, the employment of novice RNs in this environment, and the lack of an educator, clinical facilitator or support from a mentor. In addition, undesirable emotions resulted from this lack of support. Mary summarised:

> *"Also finding assessors that were able to take the time to explain things to you properly and not just mark something off for the sake of getting it done"* (P2C, P2, L 62-66). "*There were only two people that could assess me at the time and those two people were on the opposite shift as well"* (P2C, P4, L165). *"So you would practice in your mind and then just go for the assessment once a mentor was available to assess you"* (P2C, P4, L125). "*Like once I had been found competent on a procedure and when I redid the procedure at a later stage, I learnt something new about that procedure that I had done. Then alarm bells went off for me and I thought but how was I found competent on the procedure previously, when now I have learnt such a big thing about this procedure"* (P2C P5, L128-133). *"I also feel that you would feel much more confident doing your procedure if you practice with a practical who knows what they are doing". "You remain workforce, obviously to the benefit of the patient, but that you also have goals to achieve, to become a better critical care nurse"* (P2C, P4, L282-284).

Peter explained:

> *"This is like the first time I've worked with a patient fresh out of a CAGB. He's got drains, he's got a pacemaker. I don't even know what it says. The name says something, but how it works, I don't understand"* (P5C, P3, L97-101). *"I feel clinical facilitators, in a big hospital like XXX, it's not enough. Sister Mavis* (the educator)*, she is separated throughout 'this town' and 'that town' and everywhere, and she still has to do other classes. So she's the clinical facilitator for the ICU and for every other department. Not just the ICU course, but she's also doing the bridging course and whatever else, and a class in enrolled nurses and everything. So, even there, I feel she could have extra help. She could have someone, an extra hand to help her in getting to us"* (P5C, P3, L196-201). *"I am stressed"* (P5C, P3, L107).

Participants reported that novice RNs and those new to the critical care environment have a particular high need for support which requires further time commitments. These findings are in line with the suggestion by Ryder et al. (2018:439) that learning in nursing is characterised by a close relationship between theory and practice, meaning that nursing cannot be taught solely through theory or practice. Learning in practice entailed aspects such as performing practical procedures, collection of a portfolio of evidence, and supervision. However, participants in this study reported a lack of support in the integration

of theory and practice. For this reason learning, integration, and reflection on learning was insufficient to enable them to achieve their learning needs.

The lack of integration of theory and practice as a result of poor clinical support is consistent with findings by Heyns et al. (2017:109) which is of importance to managers and policy makers. These authors emphasised that support by a clinical facilitator has the purpose to translate evidence-based knowledge into practice and to develop individual practitioners. Through support, changes to be made are identified and implemented. Sherman and Chappell (2018:4) believe that CPD is learner-focused and faculty-supported. This is in contrast to faculty-driven programmes. Therefore, there is more cause for support to be given to nurses so that gaps in learner needs can be identified and addressed timeously.
In addition to the lack of support, participants verbalised the negative effect of the high workload and stressful working environment on their learning.

ii. High workload and stressful working environment

The clinical environment impacts on nurses' professional development and learning as a result of high responsibility, excessive stress with immense workload, and often limited support or time for reflection (Govranos & Newton 2014:656). Data analysis revealed the second element on *the gravel road* that hindered participants in their learning, identified as *obstacles extra-person.* The impact of the high workload, stressful working environment and responsibility carried by RNs in the CC environment, the extent of illness encountered in patients to be cared for by inexperienced RNs, the lack of available CC qualified shift leaders, not only inexperienced RNs, but also the presence of novice RNs were reported by the participants.

Litha verbalised:

> *"Some nurses are on a tea break, then it's doctors' rounds, then it's something. Your evaluation must come second, but the patient safety first, obviously. So, eventually I had to come in on my off day, and that is what helped me to complete my procedures, because the other times didn't work"* (P6C, P7, L250-255).

Zozo said:

> *"When you are working in the ICU, you are always running. You are always running, because you must do everything in its time"* (P7C, P2, L66-67).

Toliswa said:

> *Here it's just a nightmare. While you are holding the patient, the machine is alarming. You don't know where to go actually.166-168. It's just that the workload, the patients are sick you just need to nurse the patients"* (P2T, P5, L66-67, 239-240).

Peter concluded:

> *"Recently, I mean, there are lots of staff that resigned and made it difficult for the current, for the ICU Sisters that are working in the ward to get to the students"* (P5C, P3, L115-117).

Ryder et al. (2018:439) emphasised that the clinical learning environment is a complex sociocultural entity that provides various opportunities to engage or disengage in learning. Brekelmans (2018:34) asserted that giving and receiving feedback, participating actively in teams, and reflecting on one's own practice is important. The first reason identified was the enormous need for and importance of support by novice RNs in the critical care environment, especially when they are learning. The second reason was that the severe shortage of CC experienced or qualified RNs means that there is less support for these novice RNs in practice.

The lack of support in the clinical environment reported by participants earlier further thus impacted the workload and stress experienced by RNs. The implication is that this means a lack of time for feedback to and reflection by RNs participating in this CPD programme as a result of patient care that always takes first priority.

In summary, Theme Two, identified as *the gravel road*, with related sub-themes was discussed in this section to address elements that had a detracting influence on the successful completion of a CPD programme in critical care from the perspectives of RNs. In the next section, theme three, identified as *the constructions ahead*, will be discussed.

3.5 THEME 3: THE CONSTRUCTIONS AHEAD

Theme three underlined the elements participants considered could be applied to strengthen the fit for purpose of this CPD programme and elicit possible recommendations of how this programme can be adapted for future CPD participants. The theme was named *the constructions ahead*. Two sub-themes formed the building blocks of the overarching theme and were identified as *changes intra-person* and *changes extra-person.* Figure 3.5 depicts the components of this theme which will be discussed in the next section.

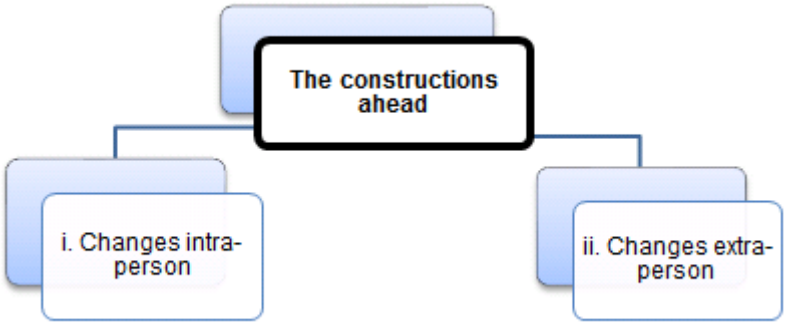


Figure 3.5: The components of the constructions ahead

3.5.1 Changes intra-person

The first element to strengthen the fit for purpose of this programme emerged as changes to be made within the individual person, therefore named *changes intra-person*. As

discussed in theme one, *readiness to learn* impacted on participants' successful completion of the CPD programme and this is linked to the first of the intrapersonal changes in this third theme that should be facilitated. The changes identified by participants encompass personal motivation and an ability to reflect on their approach to learning as well as about what they were learning. Specific components in this subtheme included the person having a realistic understanding of the programme workload requirements, the need to use programme human and study resources; and openness to developing a substantial understanding of the role of a registered nurse in critical care.

The quote below highlights the preconceived idea that many students have of the level of difficulty or complexity of the programme; Mary explained:

> *"They* (RNs) *need to understand that it's a big theoretical component of the test, even though we only have four days. It was four days in class; there is still a lot to study. So I think a lot of people come here and they think because it's a four-day class, how difficult can the course be? It's just going to be a quick cram session and then we go and write the test. So theoretically it's up to the student to produce more"* (P2C, P6, L241-244).

Unathi explained that RNs should put in effort to learn and be ready for tests. Effort should be made to learn must be made even in spare time. She had to familiarise herself with test dates to be ready for tests. She freelanced before writing a test therefore she was too tired to study before writing a test. She concluded that she was just passing through the CC environment like she did before through other fields:

> *"But the problem is anyway, the first test, I was told by my buddy that I was studying with, that tomorrow we are writing a test. I said hey? It was 19:30 in the evening, when she told me. I said hey, and I was tired, I was from another company* (participant freelanced at another hospital). *I said okay, come, let's study. So, I was studying, and I was tired. I didn't even study, because she told me again in the morning, are you ready for the test. I said which test. She said we're writing a test. I said oh, okay. So, I took my notes with me. I was reading as I was reading this. I understood this, but I was reading quickly"* (P1S, P8, L322-325). *"It's only me who is supposed to put an effort on that, not them. Yes, it's supposed to be the student that puts in the effort. Even in your spare time, just go on it and just check everything, and just keep on studying it"* (P1S, P8, L322-325). She Concluded: "*So, I was just a pilgrim in ICU, passing, as I passed the*

Akhona recommended that RNs must utilise the material resources provided on this programme. In addition she should have looked for assistance from the educator for feedback and what is expected of her to write in tests:

> *"But we were given books and everything to study, so I missed it*" (P2S, L66-68, P2). *"I think what will help me is to come to XXX (*the educator*). Maybe she knows how to answer this, and if they want this, you must answer it this way. I need to come to her with the previous questions that I wrote, and ask her what was expected of me to write here. That's the thing. That's what I need to do* (P2S, P 7, L301-303).

Nosipo supported this statement when she said that she was in the wrong:

> *"For me there was nothing wrong. It was only me being wrong, because I realised it was helpful because of the teaching was accommodating at all the learning centers. So, I can say you can keep it that way. It's going to be helpful to the others"* (P3T, P10, L349-452).

Peter confirmed that RNs have to be aware of what is expected of nurses working in the critical care environment when he said:

> *"It was a good eye opener about what they expect of us to understand as critical care nurses"* (P5C, P2, L239-240).

Although the relevant unit and nursing manager in this hospital group complete a motivational report for prospective CPD participating RNs according to their annual professional development plan, this does not actually assess the individual's own insight into what is necessary to complete the programme successfully. Griscti and Jacono (2006:454), reminds us that despite many challenges to participate in CPD, a continued hunger for knowledge by nurses exists, even more so amongst newly qualified nurses. At the same time acquisition of knowledge and skills depends on nurses' motivation level in conjunction with effective CPD activities to ensure positive outcomes (Chong et al., 2010:43, Lamb & Norton, 2018:178). In addition, the more adults mature, the higher the intrinsic motivation to learn (Cooper, 2009:502). Moreover, research has shown that highly motivated nurses will attempt to manipulate barriers to learning to meet learning needs (Ryder et al., 2018:439).

Equally important is, there are many RNs who are unable to reflect on learning while managing rapidly changing situations such as the CC environment and even more so when a timeframe is placed on learning (Govranos & Newton, 2014:655). Therefore it is important that RNs should seek their own path ways to advance in acquisition of knowledge and skills (Jakubik, 2008:5) once they have matured into the ability to identify their own learning needs. What participants thus experienced was similar to literature findings. Participants recognised that RNs need to be ready to learn, they should have a reason to learn when undertaking CPD activities thus appealing to ensure that future participants are screened for readiness to learn. As much as data revealed *changes intra-person* to be made, *changes extra-person* was identified.

3.5.2 Changes extra-person.

The second element identified to strengthen the fit for purpose of this programme emerged as changes to be made outside the person, thus named *changes extra-person.* These components concluded support, programme workload and communication and will be discussed next. Figure 3.6 highlights the components of *changes extra-person* as identified from the data reported by the participants.

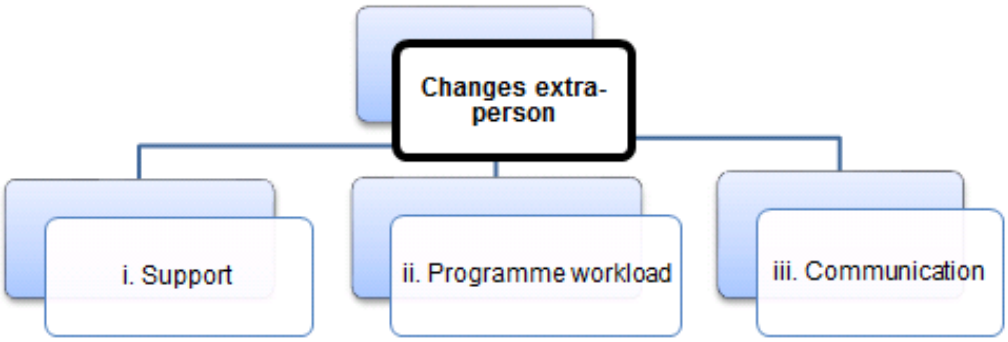


Figure 3.6: The components of changes extra-person

i. Support

The majority of participants identified that more support from the educator or a clinical facilitator is required because they perceived the educator knowledgeable and thus could help them comprehend and integrate knowledge and skills. What is more, the high workload under stressful situations in the CC environment complicated by insufficient staff, contributed even more to a lack of support to participants. In addition, participants required educators to be more readily available to assist and support them with clinical needs. Participants further reported that they experienced that support from educators lacked as a result of the workload of educators.

Peter recommended more support to RNs on this programme by the educator and extra help for the educator:

> "*She's* (the educator) *the clinical facilitator for the ICU and for every other department. Not just the ICU course, but she's also doing the "basic" course and whatever else, and a class in enrolled nurses and everything. So, even there, I feel she could have extra help"* (P5C, P2, L99-101). "*I am going to say it like this – one person* (meaning the educator) *cannot be between how many other CPD courses, and with critical care. Critical care is something you have to go sit down with a person and you have to explain it"* (P5C, P6, L221-223). *"So for me, the biggest concern of the course was support"* (P5C, P2, L231). *"There wasn't support to give me understanding"* (P5C, P2, L243).

Zozo supported Peter when she said:

> *"When you are working in the ICU, you are always running. You are always running, because you must do everything in its time"* (meaning on time) *(P7C, P2, L66-67).* She continued*: "So we have to use our ICU resources, of which, at that time, we didn't have one (P7C, P3, L101-102)*.

Mary asked for assistance to supervise RNs when they practice procedures in preparation for assessment. Theory is the responsibility of the RN but clinical accompaniment is much needed:

> "*Just to supervise you as well in the practicing of your procedures before you are ready for assessment, in a sense of, so I would like to do something at least may be three times before I attempt assessment so that I feel comfortable and confident to do my assessment*" (P2C, P4, L162-165). "*So maybe*

> *accompaniment from an assessor, mentor, from the college itself, that can pay more attention and more time to a student regarding their procedures and their practical components. I think that if they* (meaning RNs) *then at the end of the day are not passing the course due to theoretical components, that's all up the student*. *That's got nothing to do with the institution that they are doing the CPD at. But clinical accompaniment is the most important during this course"* (P2C P6, L246-251).

As mentioned before, nursing in South Africa finds itself in a crisis as a result of the impact of globalisation, leading to a shortage of critical care nurses (De Beer et al., 2011:1; Department of Health, 2012:17). In addition, critical care nursing is known as a technical and challenging environment where day to day care is influenced by workplace culture and a variety of barriers such as a high workload which is frequently quoted as one of the main reasons that contribute to disengagement by nurses (Heyns, et al., 2017:106-109).

Gohery and Meany (2013:322) supported by Lamb and Norton (2018:179) emphasise that the provision of support in the clinical learning environment such as CC, continues to be essential for nurses' professional and personal development. Sherman and Chappell (2018:1) noted that the need for support is particularly necessary as a result of the employment of nurses with no previous CC experience. These authors further asserted that CPD is embedded in the workplace, thus should be guided by expert faculty who provide opportunity for activities build around real world problems in the workplace.

Some hospitals have a clinical facilitator (CF) for the CC units however these CF's are reserved only for RNs other than those who are participating in CPD or formal CC courses and other training such as basic life support, orientation of new staff etc. The nurse managers' perception in this hospital group is that nurse educators are responsible for all RNs participating in this CPD programme. What is more, educators responsible for CC training are loaded with additional training such as basic and advanced cardiac life support, basic nursing courses, evidence based practice projects to name a few and have to travel daily to weekly to the various regional hospitals.

For these reasons participants evidently recommended that more clinical support should be made available to guide nurses in practice during this CPD programme. Cooper (2009:507) asserted that institutions should have an interest in helping their nurses to meet their personal goals. More support by means of clinical facilitation will serve to change attitudes, habits, skills thinking and working ways of practitioners needed by practitioners in the CC environment (Heyns et al., 2017:106).

After the recommendation on additional support, participants made recommendations on the workload of the programme.

ii. Programme workload

Most participants reported that the content of this CPD programme is applicable. However they recommended that the workload should be addressed by extending the timespan of the programme with additional theoretical sessions. Litha asked to have more sessions on theory of the programme:

> *"There is so much information to absorb, and you can only absorb so much. So, at some point, I felt like if I did this in more detail, or if I did these two classes, if*

> *they were divided into three classes, then maybe there could have been more you could add"* (P6C, P4, L182-185).

Deirdre agreed when she said:

> "*Like I said, it's quite a lot of work they tried to put in the four months, but I wouldn't make it less information. It does cover your basics"* (P9C, P5, L192 – 194).

Zozo said that she experienced the practical component causing too much pressure and should be reduced.

> *"I don't know whether I would say bad, but it's too much pressure. It was good, let me just say it was good, because I gained information and knowledge that I didn't have"* (P7C, P1, L20-22). *Ya, like I said, juggling between the procedure, the book, especially the book. The book,* (meaning the portfolio of evidence) *for me it was too much. But then, fortunately I passed* (P7C, P3, L86-88).

Litha proposed demonstrations followed by opportunities to practice practical procedures:

> *"So, perhaps because of time constraints, I don't know if there could be a demonstration. Even if it could be on a mannequin, a demonstration from the lecturer"* (P6C, P9, L330- 334).

The World Health Organisation (WHO) states: "There is no ideal (CPD) model to adopt. Each country should design its own system by taking into account the way in which healthcare is organised, the local cultural and economic situation, the demand for continuing education, and the constraints and resources available. This serves as a guideline for each country globally to ensure nurses remains knowledgeable and competent" (WHO, 1988:1). What is import is that all aspects of healthcare delivery are dependent on the education and skills of individual staff (Draper & Clark, 2006:515). Understanding this fosters the development of innovative strategies and interventions to assist the nurse to attain and maintain competency, even more in a highly-technological setting (Waraporn & Rozzano, 2011:104) as is strived for with this CPD programme.

The SANC calls for principles regarding CPD to be based on the values of availability, accessibility, affordability and quality; learning needs should be identified and prioritised by the individual against professional standards. CPD should be built around an individual's existing knowledge and skills linking learning to practice. It should also be adult-education and learning principles based supported by acknowledgment of varying learning styles (Mnguni & Langa. 2015:7). For these reasons this CPD programme is based on the stated requirements to fit the purpose of providing RNs with at least fundamental knowledge and skills in CC nursing.

As mentioned before most RNs participating in this CPD programme are novice or RNs new to the CC environment and this CPD programme serves to provide RNs with fundamental CC knowledge and skills. Therefore, an innovative strategy to assist RNs in their learning could be to extend this programme, taking into consideration emotional readiness to learn.

Nosipo found the programme to be sufficient and effective, but suggested to make more use of technology in the presentation of this programme:

> *"For me, I don't see any problems. I think it's as good as it is. Maybe somebody might give an input on more, because now things are being done with technology. Technologically, maybe if somebody can say you can improve it a lot on technology. But as it is now, I have seen it, it's complete. It is helpful. It's easy for everyone"* (P3T, P9, L390- 394).

Ryder et al. (2018:438) reported that structured CPD courses is used to upskill nurses moving to new clinical areas. Effective use of online learning may provide education for all staff to access at times that meets personal and professional demands. Multiple E-learning activities related to this CPD programme as well as computers to access such activities are available to all nurses within this organisation. Thus, participants on this programme will be reminded about and assisted to make use of E-learning activities.

iii. Communication

Participants identified a need to understand the meaning and application of action verbs used in tests and student activities. They suggested guidance to be given on how to interpret a question and provide a written answer to ensure the reader or educator understand what RNs mean when they answer questions. Not all RNs were familiar with the meaning and application of action verbs used in tests and student activities. Mary suggested:

> *"I think with the institution that I came from, they spent a lot of time on emphasising discuss, describe, explain, and how to answer those types of questions. Whereas somebody coming from a background where they haven't had that advantage or they haven't been in a classroom for a very long time, and maybe they can't remember, when somebody says explain, they might give a one or two word answer or something. They might not answer the question appropriately, even if they have the correct knowledge in order to answer that question"* (P2C, P6, L214 – 221). "…*we've got a lot of people that are coming to do the CPD that haven't been in a classroom maybe for a few years, and for them that feedback could be very vital in seeing the different ways questions were asked, and the different ways they were answered, and where they could do better maybe the following test"* (P2C, P5, L200 – 208).

Unathi supported the suggestion by Mary:

> "*Because I wasn't trained by a private setting, I was trained at a government hospital. So, it was my first time to write a test and to work with XXX. So, I even thought maybe it's because it was my first test with XXX, I even went to my colleagues and asked those who are trained by XXX, I asked them, how do you answer this. Even our workbook has got questions about that particular chapter, and then you answer the questions. But the first test, the questions were the same, most of them were the same as the book's questions. But the second one, hey, I can't tell you what they wanted. I didn't even look at my script. I didn't even ask for it. I was so discouraged, but I think one day I must go to YYY* (educator) *and ask for the script, because I don't know where I went wrong*" (P2S, P6, L251 – 256).

Akhona suggested that the phrasing of questions to be improved.

> *I don't expect it* (tests) *to be different. Maybe with me it was the understanding, I didn't understand the question maybe, because this is my I was thinking I passed the test. So, I think it's the way she phrased it* (P2S, L283-290, P2). *Maybe what can be improved is the phrasing of the questions* (P2S, L307, P7*).*

When it comes to communication between teachers and students, a study by Chandio, Pandhiani and Iqbal (2017:214-215) found that deep learning, critical thinking, analytical and evaluative skills are not always instilled by teachers among students. In comparison, these authors further suggested that focus is rather placed on the completion of syllabi, and students are prepared in accordance with prevailing examination patterns as further stated by these authors. Cooper (2009:502) similarly argued that examination systems are often curriculum-focused, and are not employed to assess learner achievements. What is more, this author further observed that concepts in prescribed books are often beyond students' cognitive level resulting in rote learning.

Besides literature on strategies to improve communication of knowledge comprehension, this organisation provides a list of action verbs used in objectives and goals as well as in tests available to all RNs participating in this CPD programme. These verbs are clarified from low-order to high-order thinking for the learner to enable insight into what is expected from the learner, available in the study guide provided to each RN participating in this CPD programme.

Cooper (2009:502) further suggested that a one-on-one reflective dialogue in professional development should be applied. A written examination system using Bloom's taxonomy should instill analytical and critical learning practices among students and teachers to prevent memorization and crammed learning. Application of Bloom's taxonomy is a current practice used upon setting of tests for this CPD programme.

3.6 SUMMARY

In this chapter a discussion of the findings of the study related to the research question pertinent to the three research objectives identified and which formed the three main themes, were presented. The first theme related to the elements that had a supporting influence to complete a CPD programme in critical care from the perspective of RNs. The second theme focussed on the elements that had a detracting influence to complete a CPD programme in critical care and lastly the third theme which included the elements identified and described that may be adapted to strengthen the fit for purpose of this programme.

The three themes with the respective sub-themes and related components were discussed in detail supported by verbatim quotes from participants. The findings were contexualised within existing literature to support or oppose the experiences shared by participants. In Chapter Four the researcher will present recommendations on actions to be implemented to be able to optimise the completion of a CPD programme for registered nurses in the critical care environment based on the experiences of participants and their reccomendations.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In Chapter One, an overview of the research study's background, the aim and objectives and an outline of the research process were presented. Chapter Two focussed on the research design and methodology. Chapter Three presented the findings of this study and discussions of these findings by means of themes and sub-themes. Findings portrayed the experiences of registered nurses related to their perspectives of a CC CPD programme supported by relevant literature to contextualise the data and findings.

In this chapter, this study is drawn together with a consolidation of the study findings related to the study objectives and recommendations to optimise elements influencing completion of a CPD programme for nurses in the critical care environment.

5.2 CONCLUSIONS

The aim of this study was to explore and describe the perspectives of registered nurses of elements influencing completion of a CC CPD programme in a South African private hospital group to strengthen the fit for purpose of this programme. The research objectives for this study provided the structure within which the conclusions were drawn from the study findings. These study objectives were:

- To identify the elements that had a supporting influence on the completion of a CPD programme in critical care from the perspective of RNs.
- To identify the elements that had a detracting influence on the completion of a CPD programme in critical care from the perspective of RNs nurses.
- To explore and describe elements that may be adapted to strengthen the fit for purpose of this CPD programme.

5.2.1 Overview

As a nurse educator at a private hospital group in SA the researcher is involved in an in-house CPD programme for RNs working in a CC environment. Although this CPD programme is not accredited by the SANC yet, it is set against the requirements of the South African Nursing Act, Act 33 of 2005 as well as the regulations according to the Scope of Practice, Regulation 2598 and regulations on Acts and Omissions no's 387 and 767. As mentioned before, the overarching goal of this CPD programme is to provide RNs working in the CC environment with at least fundamental knowledge and skills required. The aim of this CPD programme is thus to, in one way, generate a level of a skilled and knowledge based workforce in the light of the scarcity of qualified CC nurses in SA. In the other way this PCD programme serves to create a learning culture for RNs in this environment. Working within the current complex healthcare system in SA proves to be difficult for RNs in the CC environment, thus impacts assimilation of CPD and learning.

Over the last nine years a steady decline in the number of RNs who completed this CPD programme was observed. Despite an effort to increase the number of RNs practicing in the CC environment with fundamental knowledge and skills in the CC nursing, reality translates to fewer competent and knowledgeable RNs available to care for critically ill people in CC units, as a result of a reduced number of RNs who completed a CC CPD programme. This may have affected the quality of care and safety of patients in the CC environment. Therefore these concerns prompted the researcher to collect information from RNs about their perspectives of this CPD programme in order to strengthen the fit for purpose of this programme.

This study explored the perspectives of 14 RNs on the various contributing and detracting elements influencing their success or failure in a PCD programme in a South African private hospital group. The concept of adult learning as a research framework assisted in the development of a rich description of this phenomenon under investigation. Furthermore, a deeper understanding was gained to understand the RNs' experiences regarding the various contributing and detracting elements influencing their success or failure in this programme to strengthen the fit for purpose of this programme.

The findings of the experiences of participants in this study answered the initial research question namely; the perspectives of RNs are of elements that influence their completion of a CPD programme in critical care, offered in a private health care setting in South Africa. Participants indicated that despite challenges such as lack of support, limited time and heavy workloads, this CPD programme provided them with the fundamental knowledge and skills essential to provide safe and a better quality of patient care. A summary of the findings on the respective objectives is presented next.

5.2.1 Objective 1: To identify the elements that had a supporting influence to complete a CPD programme in critical care from the perspective of registered nurses.

Participants in this study shared their lived experiences which reflected several aspects that supported them in their learning on this CPD programme. From the interviews conducted with participants during this study, it became evident that participants experienced that once they identified a reason to learn they were ready to learn.

Participants specifically identified their reason(s) to learn as a gap in their current knowledge and skills to provide safe and quality nursing care to the critically ill. In addition most of them were novice and RNs new to the CC environment thus needed fundamental knowledge and skills in CC nursing. This was as a result of a shortage of qualified or experienced CC nurses, the stressful and high workload in this environment that requires RNs to focus all the time and be aware of the environment and changes in the patient (De Beer et al., 2011:2). What is more, participants wanted to keep abreast of medical advancement, ensure safe patient care, and learn to think how nursing care can be adapted to practice with confidence in complex and unpredictable nursing environments.

Participants who identified and formulated their own learning needs and employed the available human and material resources, proved to be self-directed in their learning, subsequently they reached their learning goal(s) and completed the programme. Furthermore clear communication emerged as another important aspect that assisted them to reach their goals and objectives. Clear communication referred more specifically to the way the programme content and expectations were stated, their own ability to communicate, and their ability to translate knowledge gained through theory and clinical exposure into writing. The participants who followed the actions of readiness to learn, (see Section 3.3.1) in chronological order seemed to be able to complete their CPD programme successfully. In the next section the findings on the second objective is summarised.

5.2.2 Objective 2: To identify the elements that had a detracting influence to complete a CPD programme in critical care from the perspective of registered nurses.

Factors that are known to hinder nurses in participating in CPD activities are well documented and similarly experienced by participants in this study (Govranos & Newton, 2013:656; Chong et al. 2011:39, Viljoen, 2017:71). Participants in this study reported personal reasons such as their own lack of readiness to learn, personal life responsibilities, a lack of support, a high programme workload and poor communication as real life factors that hindered their learning and detracted from their ability to complete this programme.

Detractors of learning pertaining to elements that cannot be controlled by nurses were experienced. Such factors were a perceived lack of support by management, mentors, and educators that was likely due to a shortage of human resources in these categories. Learning takes place once there is a change in behaviour (Heyns et al., 2017:109), however the effect of these detractors resulted in the participants reporting that nurses tend to revert to habitual practice rather than evidence-based practice. Despite detractors encountered by participants, some confirmed that their reason(s) to learn outweighed the barriers to learn and thus motivated them to become successful in their learning.

Findings in this study as supported by literature, (De Beer et al., 2011:2, Heyns et al., 2017:105) concluded that CC is a stressful work environment with a complex and demanding workload and is further complicated as a result of the shortage of qualified or experienced CC nurses. This context leaves RNs new to this environment with very little support in achieving their learning goals and ability to provide quality and safe patient care. This result in the triggering of negative emotions such as fear, stress, feelings of inadequacy, all reflected in the data analysed in this study. Lastly the third objective of this study is summarised.

5.2.3 Objective 3: To explore and describe elements that may be adapted to strengthen the fit for purpose of this programme.

Based on the elements that were found to detract participants from completing their CPD programme, elements to be adapted to strengthen the fit for purpose emerged.

Participants identified elements that may be adapted to strengthen the fit for purpose of this programme as changes required from the individual as well as changes required from the external environment. Although the majority of participants recommended RNs need to identify their readiness to learn in collaboration with the unit manager rather than be pushed to participate in the CPD programme, many felt they were ready to learn as they had a reason to learn, thus supported their learning. Recommendations to other RNs were: to discuss individual learning needs during performance and development conversations with the unit manager after which individual RNs have to take responsibility to apply the principles of self-directedness.

Similarly, participants reported that changes extra-person need to be addressed. Due to participants' struggle to complete their portfolios of evidence, they identified that more human resources support should be made available for RNs on this programme. More specifically, a huge need for competent and knowledgeable clinical facilitators to assist with assessment of procedures and integration of theory and practice were identified. Since many hospitals do not have clinical facilitators available to RNs, participants further recommended the availability of more educators to assist RNs in comprehension of theory in relation to practice. This suggestion is supported by literature as institutions need to invest in nurse learning to improve professional practice (Gallagher, 2007:469).

Participants further recommended more time should be allocated to perform procedures to ensure learning takes place which will be reflected though a change in practice behaviour. Participants further recommended that RNs who are learning should be allowed to be students rather than operational staff.

Lastly, CPD activities should be accessible electronically, to fit a time and place that support nurses in their growth and contain information that is evidence based. However, measured against the current provision of healthcare providers and economy, this proves to be a challenge.

5.3 LIMITATIONS OF THE STUDY

The following limitations of this study were identified:

This study was restricted to the topic evaluating a structured CPD programme limited to a private health care setting which could not be easily replicated. However, the information captured the tones of the lived experiences of these participants who participated in this CC CPD programme. Future studies of this nature could include more private hospital groups in South Africa.

Although the aim was to target equal numbers of participants from each region, these numbers differed. The sample was represented by more participants from one region in comparison to the other two regions. This was as a result of more participants who responded to the research invite from this particular region. Participants who responded first were accepted to participate as the researcher was worried that not enough participants from the other regions would accept the invite, which did happen. Unequal representation of participants from the three regions could have influenced findings as an equal spread of accessible number of participants did not occur.

5.4 RECOMMENDATIONS

Recommendations in this study are linked to the research objectives. For this reason recommendations focused on the development and institution of guidelines of a fit for purpose CPD programme for RNs working in the CC environment. Therefore the aim of the recommendations is to propose measures that may provide CC nursing practice with RNs with at least fundamental knowledge and skills in CC nursing. This is even more important in the light of the existing severe shortage of qualified and experienced CC nurses in practice.

Equally important is the aim to assist in the improvement of quality and safe nursing care provided to critically ill patients in SA. Therefore proposed recommendations pertaining to the first research questions will be discussed in the next section.

5.4.1 Recommendation 1: facilitate elements that support successful completion of a CPD programme in CC

Recommendation one related to the first theme, *the smooth road* identified in this research study. These recommendations were drawn from the recommendations proposed by participants based on the research findings, relevant literature and conclusions. This information guided the resaercher to suggest subsequent recommendations towards improving the fit for purpose of this CPD programme.

Nursing management

- Nursing management must engage in and address barriers that hinder learning of RNs during this CPD programme e.g. to provide skilled and knowledgeable mentors and clinical facilitators who are available to assist RNs with bedside teaching and support and assessment of procedures.

Registered Nurses

- Potential RNs applying for the CPD programme should be required to reflect on their ability to take personal responsibility for their own learning, in particular their willingness to commit to the required workload as well as their own ability to source and access resources as independent learners.
- RNs working in the CC environment should take the responsibility and commit to engaging in any other learning opportunities such as workshops and in-service training more specifically operation of technical devises used in the CC environment.

5.4.2 Recommendation 2: facilitate elements that detract RNs on the successful completion of a CPD programme in CC

The following recommendations are made to prevent situations and actions that hinder RNs to participate in and successfully complete this CPD programme, thus providing RNs that have the basic fundamental knowledge and skills in CC nursing:

Recommendation to management:

- Nursing management should allow time for RNs to ease into the environment new to RNs. They should then engage in and plan participation of RNs in this CPD programme during performance management discussions by providing guidance to RNs when they plan their development.
- Nursing management is encouraged to allow RNs participating in this programme to be learners rather than operational staff. They should provide a mentor or CC qualified clinical facilitator should be available for the shift to assist students in achieving their learning goals and objectives through bedside teaching to integrate theory into practice.
- Training equipment should reflect expectations of nurse competency output. Therefore despite the challenging economic situations in the past, present and even more the future, requests according to budgets needs to be taken seriously in consideration since the experts in nursing training who are expected to stay abreast of new knowledge and be able to guide students/nurses in the use thereof even to become familiar themselves.
- Training management should employ more CC educators to assist RNs participating in this CPD programme. CC educators should be allowed time to further their own education, to do research and be utilised specifically for CC nursing related training.

Recommendations to educators:

Education encompasses getting persons to make something of themselves within activities thought to be meaningful and whatever is taught in nursing curriculums and should turn behaviour and actions to be congruent with the professional nursing code of ethics and conduct (Pera & Van Tonder, 2011:291).

- Educators are encouraged to make use of E-learning activities available at all learning centres as a method of teaching and learning when students are in class or when students wish to do so.

Recommendations to registered nurses:

- Registered nurses are encouraged to become more participative in the identification of their learning by identifying learning needs, set learning goals and contribute to the decision as to whether they are ready to learn.
- Registered nurses must take the responsibility to actively make use of all programme information provided and communicated.

5.4.3 Recommendation 3: facilitate recommendations to adapt this CPD programme to strengthen the fit for purpose.

This programme should be provided with more time for practical demonstrations since this environment requires use of highly technological equipment. Registered nurses need to understand how to operate equipment and be able to implement trouble shooting rather than only be able to use such equipment. This will help the staff in the practice environment to spend less time with students.

- Changes in the programme should employ the input of educators rather than not since educators spend educational time with RNs and knows where and what their problems are.
- Allow for more creativity that enhances student learning.
- Respect for and acknowledgement of nurses and their practice, skills and knowledge and private time.

Implementation of a constructive and effective feedback system regarding new action plans related to nurses, policies, without being punitive towards feedback from nurses/educators should take place.

5.5 FUTURE RESEARCH

To provide quality nursing care, interventions implemented must be based on best research evidence available (Burns & Grove, 2011:465). This can only take place through regular research, done with reason and rigour and effective dissemination of findings.

The following recommendations are made for nursing research:

- Experiences and findings are limited to one private healthcare setting. It could be useful to include more private healthcare settings nationally.
- Research could also be done on single aspects of evidence from this study such as the study methods utilised by RNs when they engage in learning. If this is better understood, lasting resolutions might also be found.

Nurse educators should be included in future research to provide their perspectives on CPD for RNs working in the CC environment.

5.6 CONCLUSION

This study explored RNs' perspectives of elements that support and elements that detract completion of a CPD programme, as well elements to be adapted to strengthen the fit for purpose of this CPD programme in a South African private hospital group.

Findings from this study revealed that multiple elements such as individual readiness to learn, organisational support and communication through verbal and written ways supported participants in their completion of this CPD programme. On the other hand elements that detracted participants to complete this CPD programme brought forward elements to be adapted to strengthen the fit for purpose of this CPD programme. However, these findings also indicated that not all RNs make use of elements that

support RNs on this programme, support in the work environment and from the learning centres are not always sufficient and that the workload of the programme is high for the duration of the programme.

On the other hand, although findings in other studies supported the finding on the lack of support, studies were inconclusive about the content of CPD activities as there is no ideal CPD programme and that each country has to base their CPD activities based on their own needs as supported by Sherman and Chappell (2018:3).

The conceptual framework applied for this study was based on Knowles' theory on adult learning since adults learning should be recognised and addressed in professional development for health care workers (Cooper, 2009:502). It is assumed that these RNs have collected experiences through life, and new learning is supplemented with the already known. Furthermore, Knowles also assumed that adult learners are motivated to learn when new knowledge is relevant to their jobs and that they are able to utilise such knowledge and skills immediately.

Even though findings did not always support Knowles' theory on RNs as adults being self-directed, findings as reflected in theme one showed that participants identified various reasons to learn. Their motivation to learn was to gain basic fundamental knowledge in CC that would assist them in the provision of safe patient care, avoiding of errors and to be able to think critically on how to change nursing care to the benefit of the patient. They will be able to provide basic fundamental nursing care to patients, but unless more support in the provision of integration of theory and practice is provided and RNs make effective use of material resources provided to them, successful, completion of this programme will remain problematic.

REFERENCES

African health professions. 2011. *Regulatory collaborative for nurses and midwives.* Second report. South Africa: Durban June 2011. [Online]. Available: http://www.commonwealthnurses.org/Documents/FinalreportDurban.pdf [2019, October 5].

ArtzStudio. 2020. What is WeTransfer and how does this platform work. [Online]. Available: https://www.artzstudio.com/2020/05/what-is-wetransfer/ [2020, October 5].

Bell, L. (ed.). 2015. *AACN scope and standards for acute and critical care nursing practice.* USA. [Online]. available: https://my.pba.edu/ICS/icsfs/scopeandstandardsacutecriticalcare2015.pdf?target=52a93384-d0fd-40c7-8c20-d26d41c3f1df [2019, October 25].

Armstrong, S., Bhengu, B., Kotze, W., Nkonzo-Mtembu, L., Ricks, E., Stellenberg, E.L., Van Rooyen, D. & Vasuthevan, S. 2013. *A new approach to professional practice.* 1st ed. Claremont: Juta & Company Ltd.

Babbie, E. 2010. *The practice of social research: International student nurse edition.* 12th ed. United States of America: Wadsworth: Cengage Learning.

Benner, P. 1984. *From novice to expert: Excellence and power in clinical practice*. Menlo Park: Addison-Wesley.

Botma, Y., Greeff, M., Mulaudzi, F.M. & Wright, S.C.D. 2010. *Research in Health Sciences.* 1st Edition, Cape Town: Heinemann.

Brekelmans, G., Maassen, S., Poell, R.F., Weststrate, J. & Geurdes, E. (2016). Factors influencing nurse participation in continuing professional development activities: Survey from the Netherlands. *Nurse Education Today*, 40(2016):13-19.

Brink, H., Van der Walt, C. & Van Rensburg, G. 2008. *Fundamentals of research methodology for health care professionals.* 2nd ed. Cape Town: Juta & Company Ltd.

Brink, H. 2009. *Fundamentals of research methodology for health care professionals. 2nd ed.* Cape Town: Juta.

Bucăţa, G. & Rizescu, A. M. 2017. The role of communication in enhancing work effectiveness of an organization. *Land Forces Academy Review.* Vol. XXII, No 1(85):49-57.

Cambridge Dictionary. [Online]. Available: https://dictionary.cambridge.org/dictionary/english/perspective. [2018], March 24].

Cambridge Dictionary. [Online]. Available: https://dictionary.cambridge.org/dictionary/english/unsuccessful. [2021], February 21].

Chong, M.C., Sellick, K., Francis, K. & Abdullah, K., L. 2011. What influences Malaysian nurses to participate in continuous professional education activities. *Asian Nursing Research,* (5):38-46.

Cooper, E. 2009. Creating a culture of professional development: A milestone pathway tool for registered nurses. *The Journal of Continuing Education in Nursing,* 40(11):501-508.

Creswell, J.W. Research design. 2009. *Qualitative, qualitative and mixed methods approaches.* 3rd ed. Thousand Oaks. California: SAGE publications.

Creswell, J.W. Research design. 2014. *Qualitative, qualitative and mixed methods approaches.* 4th ed. Thousand Oaks. California: SAGE publications.

Creswell, J.W. Research design. 2018. *Qualitative, qualitative and mixed methods approaches.* 5th ed. Thousand Oaks. California: SAGE publications.

De Beer, J., Brysiewicz, P. & Bhengu. B.R. 2011. Intensive care nursing in South Africa. *Southern African Journal of Critical Care,* 27(1):1-7.

Department of Health. Republic of South Africa. 2012. *The national strategic plan for nurse education, training and practice,* 2012/13-2016/17. [Online]. Available: https://sanc.co.za/archive/archive2013/linked_files/Strategic_Plan_for_Nurse_Education_Training_and_Practice.pdf [2017, September 24].

De Vos, A.S. (ed.). 2000. *Research at grass roots*. 1st ed. Pretoria: Van Schaik.

De Vos, A.S., Strydom, H., Fouche, C.B. & Delport, C.S.L. 2013. Research at grass roots for the social sciences and human service professions. 4th ed. Pretoria: Van Schaik.

Drude, K.,P., Maheu, M. & Hilty, D.M. 2019. *Continuing professional development. Reflections on a Lifelong Learning Process.* [Online]. Available: https://doi.org/10.1016/j.psc.2019.05.002 2019, June 26.

Gallagher, L. 2006. Continuing education in nursing: A concept analysis. *Nurse Education Today*, 27(5):466-473.

Gohery, P & Meany, T. 2013. Nurses' role transition from clinical ward environment to the critical care environment. *Intensive and critical care nursing,* 29:321-328.

Gould, D., Drey, N., & Berridge, E.J. 2007. Nurses' experiences of continuing professional development. *Nurse Education Today.* 27 (4) 602-609.

Govranos, M. & Newton, J.M. 2014. Exploring ward nurses' perceptions of continuing education in clinical settings. *Nurse Education Today,* 34(4):655-660.

Green, J. & Thorogood, N. 2014. *Qualitative methods for health research*. 3rd ed. Los Angeles : SAGE.

Griscti, O. & Jacono, J. 2006. *Effectiveness of continuing education programmes in nursing: literature review. Journal of Advanced Nursing,* 55(4):449-456.

Grove, S.K., Burns, N. & Gray, J.R. 2013. *The practice of nursing research: Appraisal, synthesis and generation of evidence.* 7th ed. Missouri: Saunders Elsevier.

Grove, S.K., Gray, J.R. & Burns, N. 2015. *Understanding nursing research: Building an evidence-based practice*. 6th ed. Missouri: Saunders Elsevier.

Guba, E. G., & Lincoln, Y. S. 1994. Competing paradigms in qualitative research. In N. K. Denzin Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105-117). Thousand Oaks, CA: Sage.

Hang, M. & Xi, C. 2018. *Critical care nursing in Hong Kong*. *The world of critical care nursing*, 12(3):70-71.

Health Professions Council of South Africa. 2017. *Continuing professional development: Protecting the public and guiding the professions.* [Online]. Available: https://hpcsa.co.za/?contentId=463&actionName=About%20Us [2018, March 25].

Hegney, D., Tuckett, A., Parker, D. & Robert, E. 2010. Access to and support for continuing professional education amongst Queensland nurses: 2004 and 2007. *Nurse Education Today,* 30(2):142-149.

Hennink, M.M, Kaiser, B.N. & Marconi, V.C. 2017. *Code saturation versus meaning saturation: How many interviews are enough? Qualitative Health Research,* 27(4):591 – 608.

Heyns, T., Botma, Y. & van Rensburg, G. 2017. *A creative analysis of the role of practice development facilitators in a critical care environment. Health SA Gesondheid*. 22(2017)105-111.

Innes, T. & Calleja, P. 2018. *Transition support for new graduate and novice nurses in critical care settings: An integrative review of the literature*. *Nurse Education in Practice,* 30(2018):62-72.

Jakubik, L.D. 2008. Jump starting your nursing career: Toolbox for success. *The Pennsylvania Nurse,* 63(1):4-7.

Kemp, S.J. & Baker, M. 2013. Continuing professional development – reflections from nursing and education. *Nurse Education in Practice,* 13(6):514-545.

https://books.google.co.za/books?hl=en&lr=&id=ZEfXAwAAQBAJ&oi=fnd&pg=PA53&dq=info:pvMoDDVjEjIJ:scholar.google.com/&ots=KXGOL78NOx&sig=mG_xkwWuH9nCIMCd-WoW6twhXfo#v=onepage&q&f=false [2018: November 28].

LoBiondo-Wood, G. & Harber, J. (2014). *Nursing research. Methods and critical appraisal for evidence-based practice.* 8th ed. Missouri: Elsevier Mosby.

Marshall, J.C., Bosco, L., Adhikari, N.K., Connolly, B., Diaz, J.V., Dorman, T., Fowler, R.A., Meyfroidt, G., Nakagawa, S., Pelosi, P., Vincent, J.L., Vollman, K. & Zimmerman, J. 2017. What is an intensive care unit? A report of the task force of the World Federation of Societies of Intensive and Critical Care Medicine. *Journal of Critical Care,* 37(2017): 270-276.

Mediclinic. 2016. *Study guide for CPD course in critical care nursing* (TR1841). Stellenbosch: Mediclinic (Pty) Ltd.

Merriam-Webster Dictionary. [Online]. Available: https://www.bing.com/search?q=meaning+of+learning+merriam+and+webster&qs=n&form=QBRE&sp=-1&pq=meaning+of+learning+&sc=8-20&sk=&cvid=B780AAB22F0F43B78C8FF94DA5DBD48A [2019, September 1].

Merriam-Webster Dictionary. [Online]. Available:

https://www.merriam-webster.com/dictionary/program [2018, February 14].

Mnguni, A. & Langa, S. 2015. *Continuous professional development framework for nurses and midwifes/accouchers in South Africa, 2015:6.* Draft. [Online]. Available: https://www.bing.com/search?q=Mnguni,+A.+%26+Langa,+S.+2015.+Continuous+professional+development+framework+for+nurses+and+midwifes%2Faccouchers+in+South+Africa,+2015%3A6&src=IE-SearchBox&FORM=IESR4A [2017, March 4].

Moodley, K. 2011. *Medical ethics, law and human rights*: *A South African perspective*. Pretoria: Van Schaik.

Muller, M. 2009. Nursing dynamics. 4th Ed. Cape Town. Heinemann publishers Ltd.

Ni, C., Hua, Y., Shao, P., Wallen, G.R., Xu, S. & Li, L. 2014. *Continuing education among Chinese nurses: A general hospital-based study. Nurse Education Today,* 3(4):592-597.

Nsemo, A.D., John, M.E., Etifit, R.E., Mgbekem, M.A. & Oyira, E.J. 2013. *Clinical nurses' perception of continuing professional education as a tool for quality service delivery in public hospitals. Calabar, Cross River State, Nigeria. Nurse Education in Practice,* 13(4):328-334.

Pera, S.A. & Van Tonder S. 2014. *Ethics in healthcare.* 3rd Ed. Cape Town. Juta & Co. Ltd.

Polit, D.F. & Beck, C.T. 2014. *Nursing research. +Principles and methods. 8*th ed. Philadelphia: Wolters Kluwer Lippincott Williams & Wilkens.

Pool, I., Poell, R. & ten Cate, O. 2013. *Nurses' and managers' perceptions of continuing professional development for older and younger nurses: A focus group study. International journal of nursing studies*, 50(2013)34-43.

Prabavathi, R. & Nagasubramani, P.C. 2018. *Effective oral and written communication. Journal of Applied and Advanced Research*, 3(1)29–32.

Project management. [Online]. Available:

https://pm.stackexchange.com/questions/3122/definition-of-project-success.

[2018, February 27].

Republic of South Africa (RSA). 2007. Health Professions Amendment Act 29 of 2007. Pretoria: Government Printer.

Republic of South Africa (RSA). 2019. South African Nursing Council. *Rules for the continuing professional development and renewal of registration*. Government Gazette No. 42887, 6 December. [Online]. Available: www.gpwonline.co.za [2020, April 30].

Ryder, M., Browne, F., Galvin, C., Leonard, O & O'Reilly, J. 2018. Fit for purpose? Evaluation of CPD courses for nurses in an Irish university teaching hospital. *British journal of nursing,*27(8)434-440.

Saldaňa, J. 2014. *The coding manual for qualitative researchers*. 3rd Ed. SAGE Publications Ltd, Arizona USA.

Sandelowski, M. 2000. Focus on research methods. Whatever happened to qualitative description? *Research in Nursing and Health,* 23:334-340.

Shenton, A.K. 2004. Strategies for ensuring trustworthiness in qualitative research projects. *Education for information,* 22:63-75.

Sherman, L.T. & Chappell, K., B. 2018. *Global perspective on continuing professional development. The Asia Pacific Scholar, 3(2):1*.

Shinners, J. 2019. *Nursing professional development and continuing education in 2019: Organisation, assessment, and evaluation*. *The journal of continuing education in nursing,* 50(1):6-8.

Smith, M. K. 2002 'Malcolm Knowles, informal adult education, self-direction and andragogy', *The encyclopaedia of pedagogy and informal education.* [Online]. Available: www.infed.org/thinkers/et-knowl.htm. [2020, October 14].

South African Nursing Council. 2013. *R 786. Regulations regarding the scope of practice for nurses and midwifes.* Pretoria: SANC.

South African Nursing Council (SANC). 2018. Circular: 3/2018.

Tight, M. (Ed.). 2012. Education for adults. Volume 1. A*dult learning and education.* Routledge. London and New York. [Online]. Available:

Viljoen, M., Coetzee, I. & Heyns, T. 2017. *Critical care nurses' reasons for poor attendance at a continuous professional development program*. *American Journal of Critical Care,* 26(1):70-76.

Waraporn, K. & Rozzano, C. L. 2011. *Thai nurses' experience of caring for persons with life-sustaining technologies in intensive care settings. Intensive and Critical Care Nursing,* 27(2):102-110.

World Health Organisation (WHO). 1988. Continuing education of health workers. Geneva.

World Medical Association. 2013. Declaration of Helsinki. [Online]. Available: https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/ [2017, August 12].

APPENDICES

Appendix 1: Application for approval HREC Stellenbosch University

HEALTH RESEARCH ETHICS COMMITTEE 1 AND 2

APPLICATION FORM: NEW PROTOCOL

(INFORMATION SHOULD BE TYPED)

Researchers must ensure that they use the current version of the HREC application form at www.sun.ac.za/rds Applications on outdated HREC application forms will be rejected.

SECTION 1: DETAILS OF APPLICANT/PRINCIPAL INVESTIGATOR		
Title, First name, Surname: Ms. Jeannie van Heerden	**Staff/Student number:** 12675547	***PROJECT ID NUMBER***
Professional Status: Registered Nurse		
University DIVISION: Nursing		
University DEPARTMENT: Medicine and Health Science		
Complete Postal Address: 12 Pison Street, Eden, Stellenbosch, 7600		
Telephone No: 082 841 3344	**E-mail address: Jeannie.vanheerden@mediclinic.co.za**	
Registration with Professional Licensing Body* (e.g. HPCSA, Nursing Council, AHPCSA) X Yes ☐ No	**Registration #:** South African Nursing Council: 12985370	
***Note:**		

- *or equivalent statutory health council registration no. as appropriate*
- *if registration is pending, submit proof of application*
- *if a non-medically trained PI is overseeing research which involves medical procedures, the application must include a medical doctor registered with the HPCSA as a co-investigator*

SECTION 2: TITLE OF STUDY

Title of Research Project: Exploring Continuing Professional Development in critical care: registered nurses' perspectives of a programme offered at a private hospital group in South Africa.

Sponsor's Protocol No (if applicable) NA

Sponsor's Details (if applicable) NA

Is this a sub-study (new research question) linked to an existing/main study? ☐ Yes X No	**If yes, HREC #:**

SECTION 3: STUDY FOR DEGREE PURPOSES (*including electives and skripsies*)	X Yes ☐ No	**Undergraduate** ☐	**Postgraduate** X
Name of Degree: MNurs	**Supervisor: Dr. Janet Bell**		
Division: University Stellenbosch, Nursing	**Contact No: 082 563 7683**		
Department: Nursing	**E-mail:** jbell@sun.ac.za		

Is this a group student project? (if yes, please list names of all students in group under Section 4) ☐ Yes X No

Will this project involve students as part of the research team (but <u>not</u> for degree purposes)? ☐ Yes X No

(if yes, please list names under Section 4)

SECTION 4: DETAILS OF COLLABORATING INVESTIGATORS

Name and Title	**Position and role**	**If investigator is a student, please indicate whether postgraduate or undergraduate**	**Division AND Department**
1. Not applicable			
2.			
3.			
4.			
5.			

SECTION 5: DETAILS OF SUB-INVESTIGATORS

Name and Title	**Position and role**	**If investigator is a student, please indicate whether postgraduate**	**Division AND Department**

		or undergraduate	
1. Not applicable			
2.			
3.			
4.			
5.			

SECTION 6: WHERE WILL THE STUDY BE CONDUCTED?	
1. Tygerberg Hospital	
2. Stikland Hospital	
3. Karl Bremer Hospital	
4. Faculty of Medicine and Health Sciences	
5. Other: please list: Learning Centers of the Mediclinic Private Hospital Group.	

SECTION 7: HUMAN SUBJECTS RESEARCH PROTECTION	
1. Does the Research involve Human Subjects who are Alive?	X Yes ☐
Dead (includes identifiable tissues specimens)?	☐ Yes X
Medical records only?	☐ Yes X
Students, staff or alumni of Stellenbosch University	☐ Yes X No
2. Will any medicine be tested during the investigation?	☐ Yes X
2.1 If Yes to question 2, is the medicine approved by the Medicines Control Council?	☐ Yes ☐
2.2 If yes to question 2.1, is the medicine registered for the dose which will be used in this specific project?	☐ Yes ☐ No
2.3 If Yes to question 2.1, is the medicine registered for the indication(s) which will be used in this specific project?	☐ Yes ☐ No
2.4 If No to question 2.1, is the medicine approved by the Medicines Control Council for your use in this specific project?	☐ Yes ☐ No
2.5 If No to question 2.2 and/or 2.3, is the medicine approved by the Medicines Control Council for your use in this specific project?	☐ Yes ☐ No
3. Will any radioactive material be administered to the patient during the investigation?	☐ Yes X No
4. Is any biohazardous material (*) involved in the project? (*) *"Biohazardous material" refers to recombinant DNA molecules, viruses, fungi, parasites, bacteria and all other potentially biohazardous material or products that are dangerous to both the experimental patient and the researcher.*	☐ Yes X No

SECTION 10: RESEARCH WITH CHILDREN	
1. Does your research involve children? *(A child is defined as a person younger than 18 years old)*	☐ Yes X No
If no, please continue to section 11	
If yes, please specify the age range of potential child participants	
1.1 This research is essential research for children and presents a reasonable opportunity to further the understanding, prevention, or alleviation of a serious problem affecting the health or welfare of children.	☐ Yes ☐ No
1.2 Indicate which risk category is applicable to your research involving children (Please check [✓] the appropriate box below and provide a brief justification)	
1.2.1 *The research poses no more than minimal risk to the child (that is, the risk commensurate with daily life or routine medical or psychological examinations – referred to as 'negligible risk' in some guidelines);*	
1.2.2 *The research poses more than minimal risk but holds out the prospect of direct benefit for the child participant.*	
1.2.3 *The research poses a minor increase over minimal risk, with no prospect of direct benefit to the child participant, but will likely yield generalisable knowledge about the condition under study;*	
1.2.4 *The research does not meet the conditions for the risk categories above but presents a reasonable opportunity to further the understanding, prevention, or alleviation of a serious problem affecting the health or welfare of children.*	
1.2.5 *Brief justification:*	
1.3 Indicate whether the child research is *Therapeutic* or *Non-therapeutic* *(Please check [✓] the appropriate box below and provide a brief justification)*	
1.3.1 ***Therapeutic research*** *= Interventions that hold out the prospect of direct health-related benefit for the child participant; OR*	
1.3.2 ***Non-therapeutic research =*** *Interventions that do not hold out the prospect of direct health-related benefit for the child participant but results may be produced that significantly contribute to generalisable knowledge about the child participant's condition. (If you marked "yes" to this question please ensure to complete section 1.3 below)*	
1.3.3 *Brief justification:*	
1.4 Department of Health regulations for non-therapeutic research with children *(complete only if you ticked **1.3.2** above)*	
1.4.1 Condition 1: The research objectives cannot be achieved except by the participation of minors	☐ Yes ☐ No

Describe the scientific justification for the enrolment of minors. Explain why this research must be done with minors as participants:

1.4.2 Condition 2: The research is likely lead to an improved scientific understanding of certain **conditions, diseases or disorders affecting minors**	☐ Yes ☐ No
Describe how the research might, or aims to, advance knowledge affecting the health and welfare of minors as a class. Note that 'condition' is defined in the Regulations as 'physical and psycho- social characteristics understood to affect health' allowing that this research does not only involve children with an illness:	
1.4.3 Condition 3: Any consent given to the research is in line with public policy	☐ Yes ☐ No
Consent given by authorised persons must be in line with public policy considerations. Describe how consent to the research will be in line with public policy or would be acceptable, for example, show how the research poses acceptable risks and promotes the rights of minors:	
1.4.4 Condition 4: The research does not pose a significant risk to minors; and if there is some risk, the benefit of the research outweighs the risk.	☐ Yes ☐ No
Describe how the potential risks from the research procedures and/or intervention to minor participants will be minimized and describe any possible benefits from the research to society in the form of knowledge:	

1.5 Paediatric blood volumes

1.5.1 Please indicate the volume of blood you plan to draw from each child. _____(including routine

blood speciments for clinical care)

Please see: http://www.sun.ac.za/english/faculty/healthsciences/rdsd/Pages/Ethics/SOP.aspx for guidance on ethically

acceptable blood volumes

1.5.2 If the blood volume exceeds the above guideline, please provide additional motiviation for consideration by HREC:

SECTION 11: DISCLOSURES	
1. Have you acquainted yourself with the code of conduct regarding the Ethics of research at this Institution and do you undertake to fully comply with it at all times?	X Yes ☐ No
2. Has this study been, or is it likely to be, submitted to any other Research Ethics Committee?	☐ Yes X No
2.1 If yes, please name the Committee(s) and provide outcome i.e. approved/rejected. *(If approved, attach approval letter)*	

3. Has the Principal investigator or any of the co-investigators been previously/or are presently being investigated for alleged research misconduct?	☐ Yes X No
3.1 If yes, please provide details and dates	
4. Are any of your intended research participants in other research studies and/or trials?	☐ Yes X No
4.1 If yes, please provide details	
5. Are you presently a Principal Investigator (PI) in other research and/or clinical trial activities?	☐ Yes X No
If yes, please provide details and % of your time allocated to each	
6. Have you completed a Payment instruction form: Health/Human or Payment instruction form: Clinical trial AND attached proof of payment to this application (Health/Human research)?	☐ Yes X No
7. Does this protocol comply with the Helsinki Declaration of 2013? *(See http://www.wma.net/en/30publications/10policies/b3/)*	X Yes ☐ No
If no, please explain with full justification	
8. Does the protocol provide insurance for research-related injuries? *(See Section 9 "Participant Insurance" of Health Research Ethics (HREC) Standard Operating Procedures (SOP)* – Available at: http://www.sun.ac.za/english/faculty/healthsciences/rdsd/Pages/Ethics/SOP.aspx **To secure your insurance certificate, please contact Mr Wium van Kerwel: wvankerwel@sun.ac.za / 021 808 2809 (Financial Planning and Asset Management)**	☐ Yes X No
1.1 If yes, please describe:	
1.2 If no, please justify: There is no risk of research related injuries.	
1.3 Is the provision of insurance compliant with SAGCP Section 4.11?	☐ Yes X No
1.4 If no, please justify: There is no need for provision of insurance.	
9. If you anticipate exporting samples/data to other site(s), locally or internationally, please provide a justification for this. *Note: Attach draft Material Transfer Agreement (MTA).* **NA**	

10. Does the protocol provide for payment of research participants according to National Health Research Ethics (NHREC) guidance? *(See NHREC (2012). Payment of trial participants in South Africa: Ethical considerations for Research Ethics Committees (RECs). NHREC)* – Available at: http://www.sun.ac.za/english/faculty/healthsciences/rdsd/Pages/Ethics/SOP.aspx	No
11. Does the project involve the use of diagnostic test results (e.g. those obtained by imaging or by laboratory testing)?	☐ Yes X No
11.1 If yes, has the applicant consulted a professional from a relevant diagnostic discipline (e.g. radiology or pathology, as applicable)?	☐ Yes X No
11.2 Please provide the name, position, and discipline of person consulted: NA	

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY

Health Research Ethics Committee (HREC)

HEAD OF DIVISION/DEPARTMENT SIGNATURE PAGE

PROJECT TITLE	
Exploring Continuing Professional Development in critical care: registered nurses' perspectives of a programme offered at a private hospital group in South Africa.	
TYPE OF HREC SUBMISSION (Please select only one)	
☒ New protocol application ☐ New database/biobank application	☐ New case report/series application ☐ New exemption application
SIGNATURE	
Applicant	**Head of Division/Department**
Jeannie van Heerden Print name Jvan Heerden Signature 7/11/2018 Date	Prof A van der Merwe Print name Signature 2018/11/12 Date

Appendix 2: Permission obtained from Stellenbosch University

UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

Approval Notice

New Application

18/07/2019

Project ID :8074

HREC Reference # S19/01/006

Title: Exploring Continuing Professional Development in critical care: registered nurses' perspectives of a programme offered at a private hospital group in South Africa.

Dear Miss Wilma Van Heerden

The **New Application** received on 15/07/2019 12:07 was reviewed by members of **Health Research Ethics Committee** via **expedited** review procedures on 18/07/2019 and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Period: This project has approval for 12 months from the date of this letter.

Please remember to use your Project ID 8074 and Ethics Reference Number S19/01/006 on any documents or correspondence with the HREC concerning your research protocol.

Please note that the HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Translation of the informed consent document(s) to the language(s) applicable to your study participants should now be submitted to the HREC.

Please note you can submit your progress report through the online ethics application process, available at: Links Application Form Direct Link and the application should be submitted to the HREC before the year has expired. Please see *Forms and Instructions* on our HREC website (www.sun.ac.za/healthresearchethics) for guidance on how to submit a progress report.

The HREC will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Departement of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: https://www.westerncape.gov.za/general-publication/health-research-approval-process. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: Forms and Instructions on our HREC website https://applyethics.sun.ac.za/ProjectView/Index/8074

For standard HREC forms and instructions, please visit: Forms and Instructions on our HREC website https://applyethics.sun.ac.za/ProjectView/Index/8074

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

Yours sincerely,

Ms Elvira Rohland
Health Reserach Ethics Committee 2 (HREC2)

National Health Research Ethics Council (NHREC) Registration Number:

REC-130408-012 (HREC1)•REC-230208-010 (HREC2)

Federal Wide Assurance Number: 00001372
Office of Human Research Protections (OHRP) Institutional Review Board (IRB) Number:
IRB0005240 (HREC1)•IRB0005239 (HREC2)

Appendix 3: Permission form institution

MEDICLINIC

RESEARCH APPLICATION – J VAN HEERDEN

Date: 26 July 2019

FOR APPROVAL

G VAN WYK Chief Human Resources Officer

NOTES

Locality	• Mediclinic Learning Centre Cape Region
Value of Study	• Confirmed
Employee	• Yes
Topic/Title	• Exploring Continuing Professional Development in critical care: registered nurses' perspectives of a programme offered at a private hospital group in South Africa
Impact	• Three learning Centres (Cape, Tshwane and Northern Region) and 9 Mediclinic Hospitals (Milnerton, Durbanville, Louis Leipoldt, Vergelegen, Sandton, Midstream, Heart, Kloof and WDGMC)
Supported by hospital	• Supported by: Nursing Managers of above listed hospitals. E Powell, F Hutchinson and J Olivier

Appendix 4: Participant information leaflet

REFERENCE NUMBER: 12675547

PRINCIPAL INVESTIGATOR: Jeannie van Heerden

ADDRESS: Division of Nursing

Faculty of Medicine and Health Sciences

Stellenbosch University

Francie van Zijl Drive, Tygerberg,

7505

CONTACT NUMBER: (021) 938 9823 / 082 841

Dear participant

You are invited to participate in a research project. Kindly take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

WHAT IS THIS RESEARCH STUDY ALL ABOUT?

- *The study will be conducted at 14 hospitals in South Africa. Approximately 12 nurses in total will be asked to participate.*
- *The study aim of this study is to find out what Registered Nurses' perspectives of a continuing professional development (CPD) programme related to the critical care environment are e.g. how did this course influence your professional growth?*
- *The findings of this study can be used to improve on the current CPD course pertaining to patient safety, assist supervisors and managers in the making of*

decisions related to critical care nursing, to benefit professional growth of registered nurses.

- *The interview will be conducted on behalf of the researcher by an independent registered nurse with experience in research related interviewing. The researcher will not be present during any interview sessions. The interviewer will explain the main aspects of this research study to you after which you will be requested to sign a consent form.*
- *You will be interviewed by the researcher for a period of 45 - 60 minutes in a private area which will be arranged with you at your availability prior to the interview. All interviews will be recorded to ensure your information stated is replicated accurately. No personal information will be disclosed.*
- *You may be requested to participate in a second interview to explore evolving information for a period of 30 – 45 minutes should it be deemed necessary.*
- *Interviews will be conducted by independent registered nurses who are qualified to conduct interviews.*

WHY HAVE YOU BEEN INVITED TO PARTICIPATE?

- *The researcher wants to explore the perspectives of registered nurses of the CPD programme in critical care.*
- *You are a registered nurse working currently in an ICU and have completed the CPD course in critical care nursing during the past 12 months (2018), regardless whether successful.*

WHAT WILL YOUR RESPONSIBILITIES BE?

- *To provide your perspective(s) of the CPD programme in this private hospital group honestly and to the best of your ability through pre-arranged interview sessions as agreed by you following consent provided by you to participate in this study.*

WILL YOU BENEFIT FROM TAKING PART IN THIS RESEARCH?

- This research can benefit future registered nurses to influence components that can impact successful completion of this programme.
- This study can also identify and describe components that may be adapted to strengthen the fit for purpose of this programme.

ARE THERE ANY RISKS INVOLVED IN YOUR TAKING PART IN THIS RESEARCH?

- There are no foreseeable risks for any participants who take part in this study.
- Should the services of INCON be needed for debriefing sessions INCON can be contacted at your respective hospital or for the Gauteng region at 012 667 5475 or Cape Region at 021 975 2694.

WILL MY INFORMATION BE KEPT CONFIDENTIAL IN THIS RESEARCH?

- *All information gathered will be kept confidential and private through assigning code names to your name as well as that of your hospital.*
- *Data will only be available to the researcher and the supervisor of this study.*

IF YOU DO NOT AGREE TO TAKE PART, WHAT ALTERNATIVES DO YOU HAVE?

- *You do not have to take part in this research study, as it is completely your decision to do so or not.*

WHAT WILL HAPPEN IN THE UNLIKELY EVENT OF SOME FORM INJURY OCCURRING AS A DIRECT RESULT OF YOUR TAKING PART IN THIS RESEARCH STUDY?

- *The researcher does not foresee obvious cause for psychological distress of the participants, but in the event of such psychological distress caused to any participants due to any interview interactions related to the questions, such participants will be referred to their workplace's counselling facility, INCON for psychological counselling.*

Will you be paid to take part in this study and are there any costs involved?

- *There is no remuneration involved should you take part in this study.*
- *Nurses who participate in the study will be compensated for their time with a narrow beam torch/pupil torch.*

Is there anything else that you should know or do?

- *You can contact Jeannie van Heerden at 082 841 3344 or Dr Janet Bell at 021 938 9036 should you have any further queries or encounter any problems.*
- *You can contact the Health Research Ethics Committee at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your researcher.*
- *A copy of this information and consent form will be handed to you for your own records.*
- *The general results of the study findings will be published for viewing in peer reviewed journals once the study is completed and will reflect general results. Names of participants and participating facilities will not be declared.*

Appendix 5: Declaration by investigator/interviewer

Declaration by Investigator/Interviewer

I, (name) ……..…… declare that:

- I explained the information in this document to ……..
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did not use an interpreter.

Signed at (*place*) .....…..…….. on (*date*) ……...…….

....

Signature of investigator/interviewer

Appendix 6: Declaration of consent by participant

Declaration by participant

By signing below, I ……..…….. agree to take part in a research study entitled: Exploring Continuing Professional Development in critical care: registered nurses' perspectives of a programme offered at a private hospital group in South Africa.

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I grant permission to be contacted again for a second interview should it be necessary.

Signed at (*place*) ……..…….. on (*date*) ……..……

……..…… ……..……

Signature of participant **Signature of witness**

JvH Project 8074. 1

Appendix 7: Interview guide

ANNEXURE B: INTERVIEW GUIDE

INTERVIEW GUIDE

Date:_____**Place:**_____

Interviewer:_____**Interviewee:**_____

1. Tell me why did you enrol for this CPD programme in critical care?

Probing questions:

- You have mentioned….. Can you please tell me more about that?
- Can I just clarify what you mean by….
- Can you provide some examples?

2. Tell me how you think or feel this programme has influenced the way you practice nursing in critical care.

Probing questions: probing words…. Patient safety, empowerment, mistakes, work satisfaction, understanding concepts, stress, workload, motivation.

- Can you tell me more/elaborate?
- Could you provide some examples?

3. Tell me about the aspects that you found to be the most challenging for you in this programme, perhaps a very difficult experience or something that made you feel like giving up?

Probing questions:

- Please tell me more about that…
- Why do you think this was such a challenge?

4. Tell me about the things that helped you, what had a positive effect on your experience in this programme

5. Thinking about your experiences in this programme, the good and the hard ones - what would you change to improve the programme and help registered nurses in future to develop good knowledge, skills and critical thinking abilities in critical care nursing?

_____
_____

Appendix 8: Confidentiality agreement with data transcriber

CONFIDENTIALITY AGREEMENT

DATE
15.08.2019

LEIGH STORY
14 Grove Street
Parklands North
Cape Town 7441
083 407 3930
leigh02@telkomsa.net

Jeannie van Heerden
Educator
Mediclinic LTD Learning Centre Cape Region (S 917)
MEDICLINIC SOUTHERN AFRICA

I, the undersigned _Leigh Story

1. Herewith undertake that all information disclosed or submitted, either orally, in writing or in other tangible or intangible form by Jeannie van Heerden to me, or made available to me, or details of Jeannie van Heerden' business or interest of which I may become aware of in respect of transcriptions being done by myself for Jeannie van Heerden, to keep confidential and not to divulge to anyone for which Jeannie van Heerden did not give written consent;
2. Guarantee that I will apply the information, detail or knowledge in **clause 1** only for the purpose of the intended research;
3. Indemnify Jeannie van Heerden against any claims that may be instituted against Jeannie van Heerden, amounts that may be claimed or losses that Jeannie van Heerden may suffer in consequence of a violation by me of any provision included in this agreement.
4. Transcriptions are being undertaken by myself, an independent contractor, on behalf of Jeannie van Heerden.

Signed at Cape Town *on* 18th August 2019

Appendix 9: Extract of transcribed interview

2019-08-23 **P 4 T**

Speaker Key:

IV Interviewer
MI Male Interviewee

IV So, because at this stage you cannot sign the permission, I would like to go through it and then you can give me verbal feedback if you can. Then I will ask Sister Mavis from Stellenbosch University to forward you the document, and you can sign it and just send it back to her, if that's okay.
MI Okay, all right.
IV The first thing is that you must realise that this whole process is a voluntary process. You can at any time, you can decide to withdraw from the study. You just need to inform Sister Mavis, and I will give you her telephone number. You can just inform her, and she will take all the information that we share, she can delete that, and it's gone, and she will not use it. The second thing is that there is a research and ethics committee that is looking after research. They looked into this student's research study, and they approved that it is actually an ethical study, and that it will not harm you or a patient.

[00:01:32]

MI All right.
IV Then, there are only a few students that were chosen to be contacted to find out if they would like to participate. One of the things is that you must have done the CPD ICU course. You did that, didn't you?
MI Yes, I did that.
IV Okay, then that makes you a participant in the study, or somebody that is allowed to participate in this study. The interview will be round about 45 minutes, so I won't use too much of your time. But if there are any questions from the researcher's side, they will actually phone you, or they will contact you again, and then there can be a few follow up questions that they need to clarify. Will that be okay with you?
MI Yes, it's okay. Let me know something about your study. How long is it going to take, because you said if there is any feedback or any queries, they are going to contact us. So I would just like to know how long it's going to take, if it's going to take more than two or three months.
IV The study will take up until the end of the year, because what she does now is she takes this information that you're going to share with me. She needs to write it down, and then she can start analysing it to see what you say, versus what other students say, and she starts comparing things and finds what is all the same and what is different.

[00:03:22]

MI Okay, all right, you can go ahead, it's fine.
IV Okay, then what is your responsibility? It's basically that I just need your honest opinion on what you think can and cannot work, and how you feel about certain things. There's not a right or a wrong answer. It's a straightforward opinion that you can share with me.

MI I understand.
IV Are there any risks involved for you? No. I'm not going to take anything away from you, I can't harm you. I am also not a Mediclinic employee, so I cannot do anything. I am a totally independent person that is conducting the interviews for her.
MI Not a problem [chuckles]. I can understand that. No problem.
IV Then, the information that you are going to share will be the words that you tell me, is what we are going to use. We will never put your name next to what you have said. So we will anonymise it, so that it stays confidential. What you are telling me will not reflect on a person or a region, or Mediclinic for that matter.
MI All right.

[00:04:48]

IV So, it's a safe environment. Then, just before we finish, I will give you Sister Jeannie's telephone number if you have any questions for her as well.
MI Okay, no problem. If I have any queries, I will ask you, don't worry.
IV Okay, so let's start with the easy questions. Tell me a little bit, because I don't know you at all, tell me a little bit about your nursing career.
MI Okay, my name is [XX]. I am actually from India. I completed my Bachelor's degree in India. I have been working since 2008, almost 11 years. I have nine years of experience in cardiothoracic in India. I did attend some ICU courses in Individual. I attended my six-month ICU course in India, and I worked at a multispecialty hospital. I attended many cardiothoracic cases. So, when I came here, to Mediclinic, I started working here in July 2017. Currently I am working in medical ICU. Do you need any more information?
IV Can you just tell me how old you are?
MI I am 32.
IV So you are still young [chuckles].
MI Yes.
IV Okay, so if you think of the CPD ICU course, what motivated you to do it now again?

[00:07:15]

MI Actually, in medical there is a lot of advancement, clinical practices, because in medical, it is updating all the time. We are getting new information, there is a lot of research that is happening all over the world. There are a lot of new medicines coming. It is so informative for us to keep updated with our knowledge. So, that is why I decided to go to the CPD course because as I told you, I actually attended my ICU course in India, and it's a different country, and some different new practices I can see here. So, I decided to go, because I'm going to be more exposed to the new work environment. So, it has actually helped me.
IV How did it influence the way that you practice nursing in critical care, and then obviously now in South Africa?
MI There are not that many changes from India, actually. Almost all the things are the same. But when I worked that side actually, our responsibilities are not like this actually. Here we do have a lot of responsibility as a registered nurses, because currently I am working in ICU, as I told you. in India, in the high care unit there is a doctor, and a chief. So, they are always there, and there is no need for us to make acute decisions. But here, the scenario is somewhat different actually. There are no doctors, so the nurses are handling the whole unit. Actually, sometimes we have to make some decisions. Say some patients, if they are not coping well, we have to inform the doctor, because the doctors are not always available in the hospital. So, they actually want to

hear from us what we think and what we must do. Almost all the doctors, they used to

ask us those questions actually. They really want to know what we can do. Actually, they always ask us our opinions also,

[00:10:06]

So, I can feel that we are more responsible, and we need to make decisions at some certain points. It's not that we are making the actual decision, but we are more involved in the decision making. So yes, those things, there are actually some changes this side. It's something different for me.

IV Okay, so it's the fact that you have more decision making, and a higher responsibility.

MI Yes, we do have a lot of responsibility. In India, we are not able to prescribe anything. But here sometimes we have got protocols to prescribe. Actually something that is good, because it's on a different level from India. In India we are not allowed to touch the medications, the prescriptions. So as I told you, there is always a doctor, or a duty doctor. He is going to do all those things. Even with the counselling with the family. There is actually no need to do anything. We can just arrange a meeting with our duty doctor. So they are going to talk to the family, but here it's something different. Sometimes we need to talk to the family, sometimes we have to arrange the meeting with the consultant. So, there are some changes. Actually, it's better I think. I got a lot of experience this side.

IV Okay, so how did the CPD ICU course assist you to be more responsible, to make better decisions and to help with family are?

[00:12:13]

MI So, even in the CPD course, it was an update for me actually. I learnt the course, and I got better experience in ICU. Some of the information was more informative for me. So actually, when I did the practicals, it helped me because our nursing educators were very helpful. There were new machines, there were some new practices. They were telling us some new principles that we need to focus on. So, it was really helpful for me actually. There was a class on how to do the ventilator settings. During the practical sections they explained how to do the ventilator settings. So, it really helped me, because in India we never used to do all those things.

IV Does it make your work more or less stressful, now that you have done the course?

MI It is something more stressful, because we are more aware about our things and our responsibilities. So sometimes it makes it stressful for us, because we have a lot of responsibility. Because we are getting more knowledge, we have to look over everything. So, actually I can say I got some more responsibilities, and I have to do all those things. Sometimes it's stressful. I'm not saying that it's really stressful, but in some way actually it helped me because I got more information, because I can see any signs of deterioration, so I can contact the doctor so we can sort out the problems.

[00:14:16]

IV Okay, so it made you more aware of what is going on.

MI Yes.

IV Were there any changes to your workload, and how?

MI Actually, when I started here, I started like a staff nurse. After the CPD and all those things, they promoted me to shift leader, so I am currently working as a shift leader. So actually, the duties of a shift leader are different, so we have to look over

127.the unit, we need to check the patients. So, it helped me actually.
128.IV Did it make any changes to how your colleagues are approaching you?
129.MI I haven't noticed that actually. No, I didn't see anything like that.
130.IV Okay, so what did you find most challenging in this course, in this CPD
131.course?
132.MI Challenging, I never feel any challenges actually.
133.IV Was the theory okay?
134.MI Actually, the problem with the course, it was just for three months. There were
135.a lot of things to study, so they should expand the course duration, I think. That is my
136.suggestion. That's the main points that we can do, because three months is a very
137.short time, and we still need to work. We actually need to work our normal shifts, and
138.plus we need to study all those things. So three months, it's just a short period of time
139.to do all those things.

[00:16:32]

140.IV Okay, you said the theory was okay, and the practical, was the three months
141.also too short?
142.MI No, actually I used to work with all the things. I never felt any problems with
143.the practicals, because as I told you, I have a lot of experience, and I never felt any
144.problems actually.
145.IV Okay. What do you think contributed that you had a positive effect on your
146.experience in this program?
147.MI Sorry, could you please explain the question?
148.IV Tell me about the things that helped you, what had a positive effect on your
149.experience in this program. What made it positive for you?
150.MI Actually, some principles, like monitoring principles. I was never used to those
151.things actually. I got some more information actually, and ECG. I got more information
152.about the ECG readings. So it actually helped me.
153.IV So the previous knowledge that you had contributed to some of your positive
154.experiences?
155.MI Yes.

[00:18:08]

156.IV Okay. You already said that we have to look at the timeframe for this course,
157.that three months is too short. Is there any other suggestions that you would like to
158. make to have an improvement in the CPD course?
159.MI I don't think there are any changes that need to be made actually. I don't think
160.so, because it was fine for me, because I never felt any difficulty to do this course,
161.because I already did my CLF, BLF. So it didn't really worry me in any way.
162.IV Okay. Was there any problem with the language aspect for you?
163.MI No. The language, as you know, it's difficult because for you also, it's difficult
164.to understand my accent. I can understand that, that's why I am speaking very slowly
165.now, you know [chuckles].
166.IV But your accent is perfect.
167.MI Sorry?
168.IV I can understand you perfectly. Your English is good.
169.MI You know, it's not my first language, as you know. I face many problems.

169. Sometimes people won't understand what I am saying. But there were some

170.problems sometimes actually. But now I have learnt how to speak, because I used to

171.speak very fast, because your language is too fast actually. We used to pronounce a
172.lot of words in the sentence actually, we used to pronounce a lot of words in a
173.second, actually. But now I have learnt how to speak. That's why I am speaking very
174.slowly to you, otherwise you won't be able to understand.

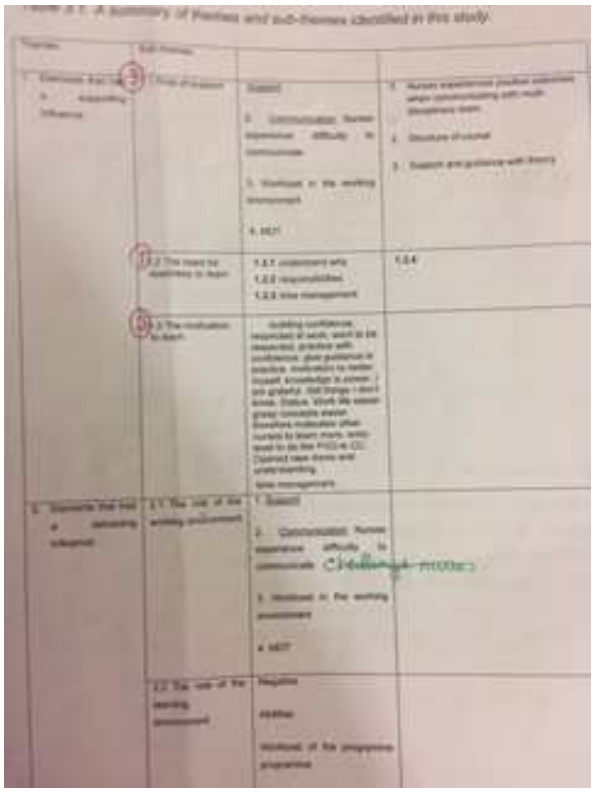
[00:20:13]

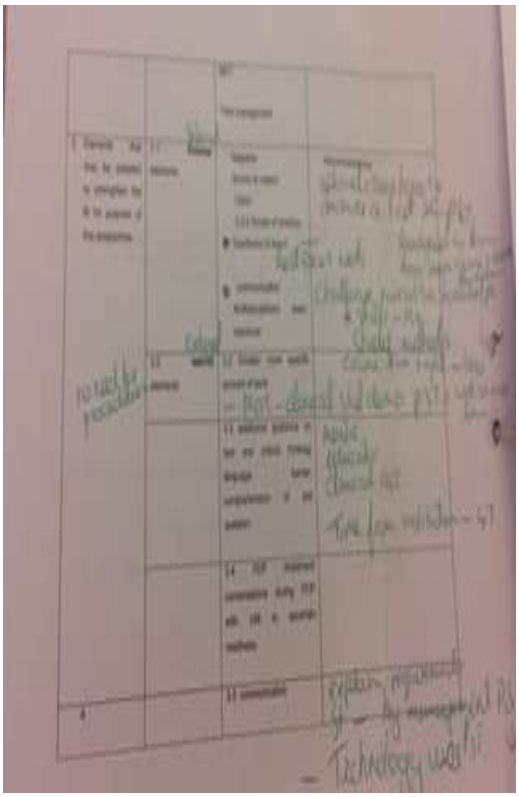
175.IV Okay, but it didn't hamper you in your studies at all?
176.MI No, not really, because our educators are very helpful. Actually, they can
177.understand us, and they know that we do have those problems. But always, if they
178.won't understand, or if I don't understand, because I always used to ask them. They
179.are always ready to explain me in a better way. Yes, they were always ready to.
180.Actually, they were very helpful.
181.IV Tell me, did you attend class, or did you attend one of the video classes,
182.where they used video connection with other students?
183.MI Yes, I did attend the classes with other students, we were four from our
184.hospital. We attended the classes in the Tshwane Learning Centre.
185.IV Is your family here? Who supported you through your studies?
186.MI No, they were not here actually. I have my laptop, because everything is
187.available. So if we have any doubt, because we are able to obtain information
188.actually.

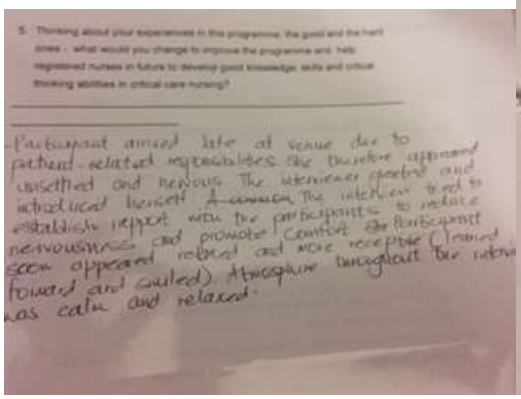
[00:21:47]

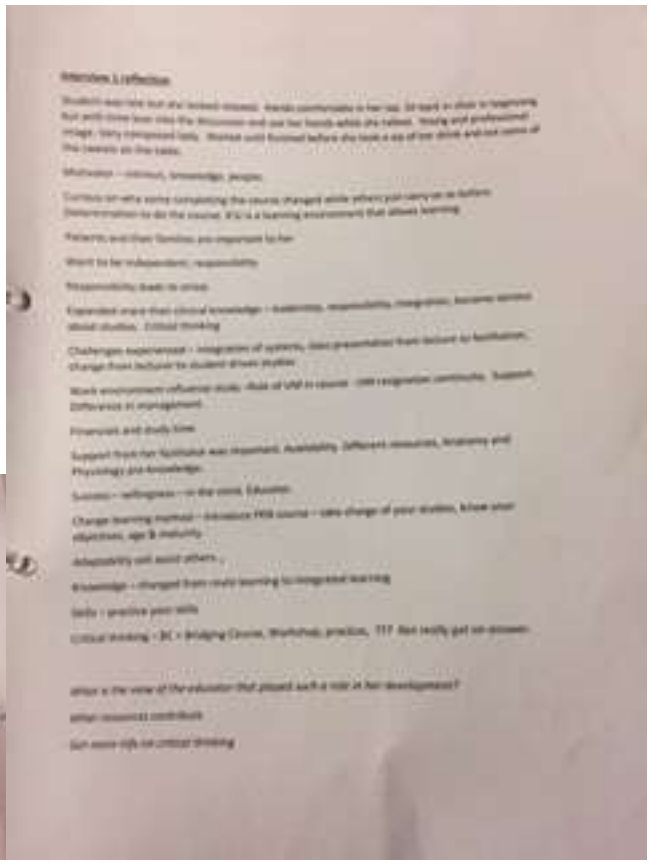
189.IV Is there anything that I didn't ask you that you would like to make me aware of,
190.about this CPD ICU course?
191.MI Not really, because it's a short course, I can understand that it's not for a year,
192.or it's not a six month course. It's a timeframe course, and it's a three month course.
193.The course was very informative. I don't think I need to make any extra suggestions. I
194.felt that the time, the duration of the course was slightly time constricted actually. That
195.was the only problem for me. But otherwise there wasn't a problem. We always used
196.to work around our normal shifts.
197.Sometimes we don't get extra hours for the exams actually. If I am attending an exam
198.or something, they have to provide us the working hours, otherwise it's going to be
199.difficult because otherwise we need to replace those hours extra. So I think there is a
200.suggestion, I think they have to give us the hours which we spend on the class,
201.attending the classes, the exams.
202.IV Okay, so extra hours, and maybe a little bit longer for the course, were the
203.main challenges that you experienced.
204.MI Yes, that's the only thing.
205.IV Okay, so that's the five questions that I need to ask you. So, I appreciate your
206.time, and if there is anything going forward, we will contact you if we need more clear
207.examples for instance.
208.MI Not a problem.
209.IV But thank you for your time, and for a late Friday afternoon. I appreciate that.
210.MI Okay, thank you madam.
211.IV See you again, bye, bye. MI Okay, bye, bye. [End of sound file 00:24:00]

Appendix 10: Mind map used for data analysis with field notes









Appendix 10: Confidentiality agreement by language and technical editor

CONFIDENTIALITY AGREEMENT

DATE

_____29 September 2020_____

Name: Angelique Blanckenberg
Address: 44A, 5th Avenue,
Melville, Johannesburg,2092
Tel no: 0733108187

E-mail address: angelb@lantic.net

Jeannie van Heerden
Educator
Mediclinic LTD Learning Centre Cape
Region (S 917)
MEDICLINIC SOUTHERN AFRICA

I, the undersigned __Angelique Blanckenberg__

1. Herewith undertake that all information disclosed or submitted, either orally, in writing or in other tangible or intangible form by Jeannie van Heerden to me, or made available to me, or details of Jeannie van Heerden's business or interest of which I may become aware of in respect of editing being done by myself for Jeannie van Heerden, to keep confidential and not to divulge to anyone for which Jeannie van Heerden did not give written consent.
2. Guarantee that I will apply the information, detail or knowledge in clause 1 only for the purpose of the intended research.
3. Indemnify Jeannie van Heerden against any claims that may be instituted against Jeannie van Heerden, amounts that may be claimed or losses that Jeannie van Heerden may suffer in consequence of a violation by me of any provision included in this agreement.
4. Editing is undertaken by myself, an independent contractor, on behalf of Jeannie van Heerden.

Signed at __Melville__ on __29 September 2020__

ABlanckenberg

Appendix 11: Data analysis in different colours